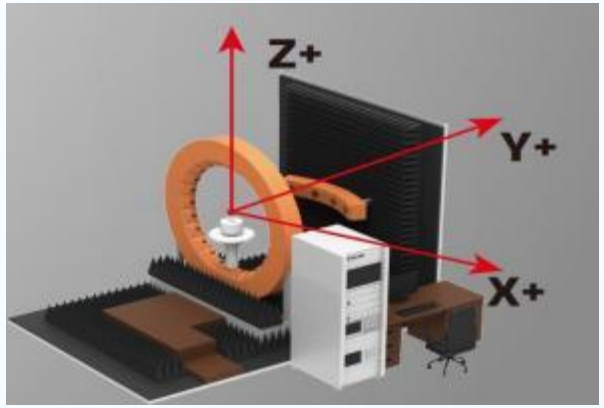
TestSystem

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



Test Result *VSWR*&Log Mag&Smith(Ω) 1#

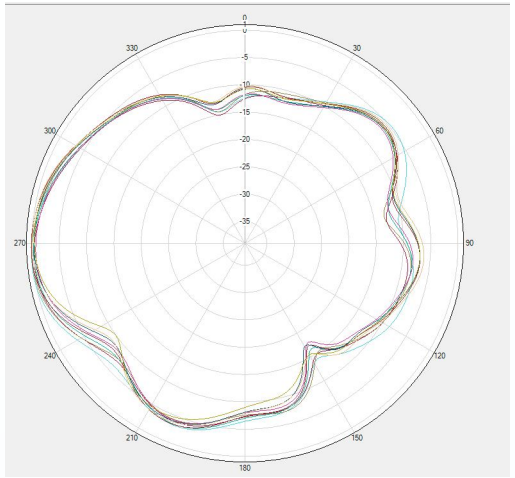
Test Result VSWR&Log Mag&Smith(Ω)

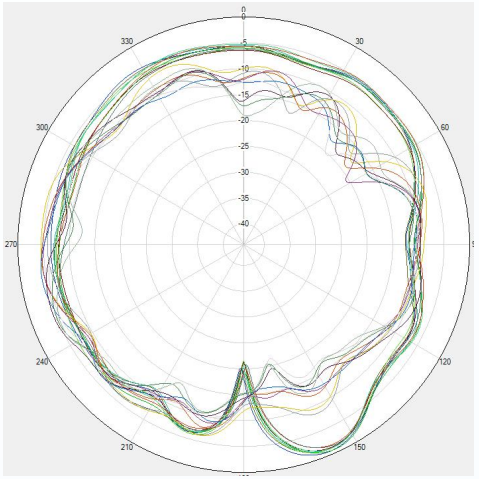
Gain & Efficiency——ANT 1#

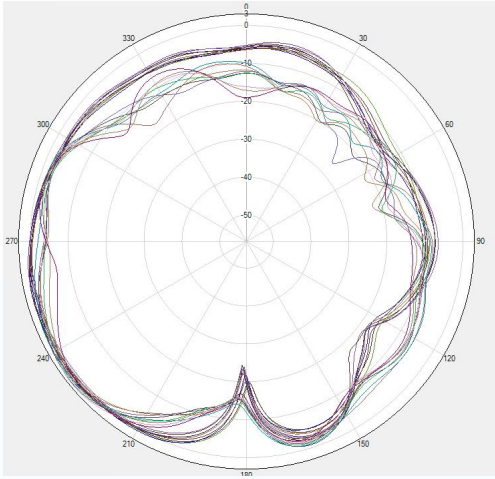
Frequency (MHz)	Max GAIN (dBi)	Efficiency (%)	Frequency (MHz)	Max GAIN (dBi)	Efficiency (%)
2400	1.87	40.46	5100	2.13	35.26
2410	1.93	41.59	5190	1.9	36.17
2420	2.09	44.36	5280	2.18	37.44
2430	1.96	45.39	5370	2.42	38.29
2440	2.03	46.67	5460	1.65	39.26
2450	2.04	45.08	5550	1.18	38.44
2460	1.99	44.26	5640	2.86	37.57
2470	2.13	43.25	5730	2.84	37.11
2480	2.22	41.31	5800	3.16	36.24

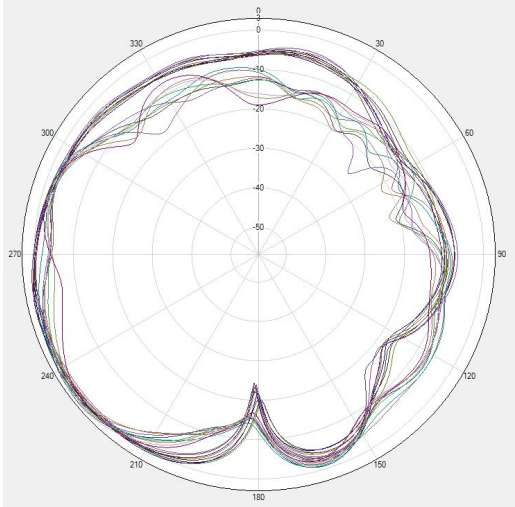
Test Result

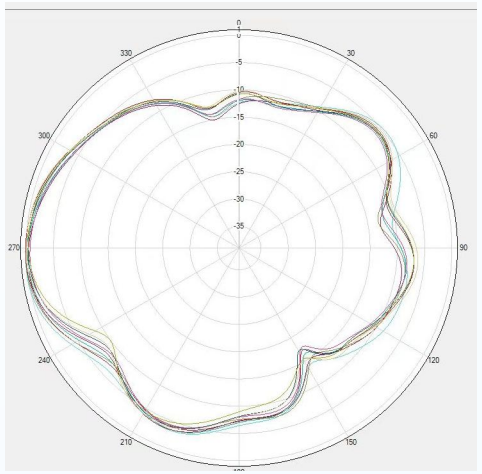
2D Pattern——WIFI ANT 1#

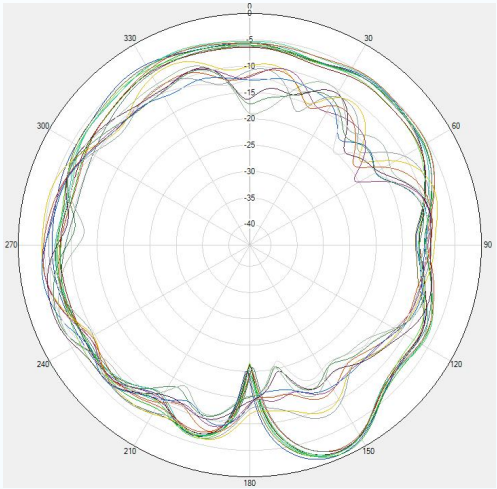






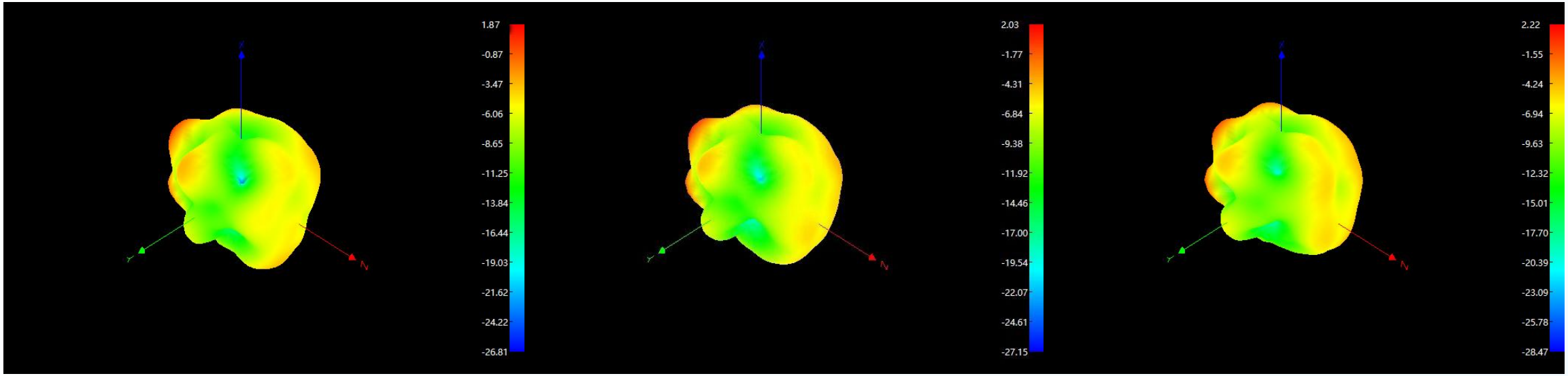






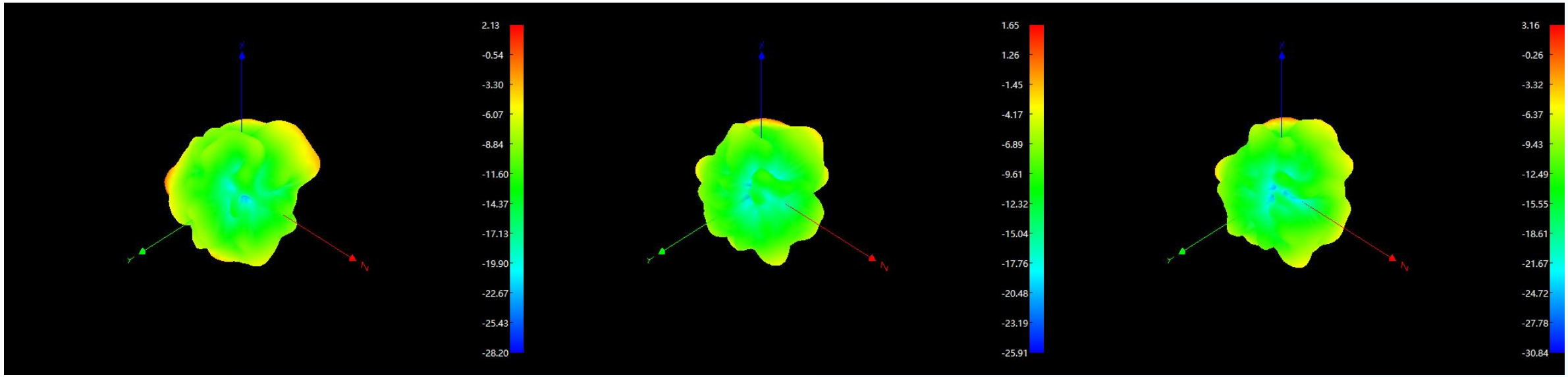
Test Result

3D Pattern——WIFI ANT 1#

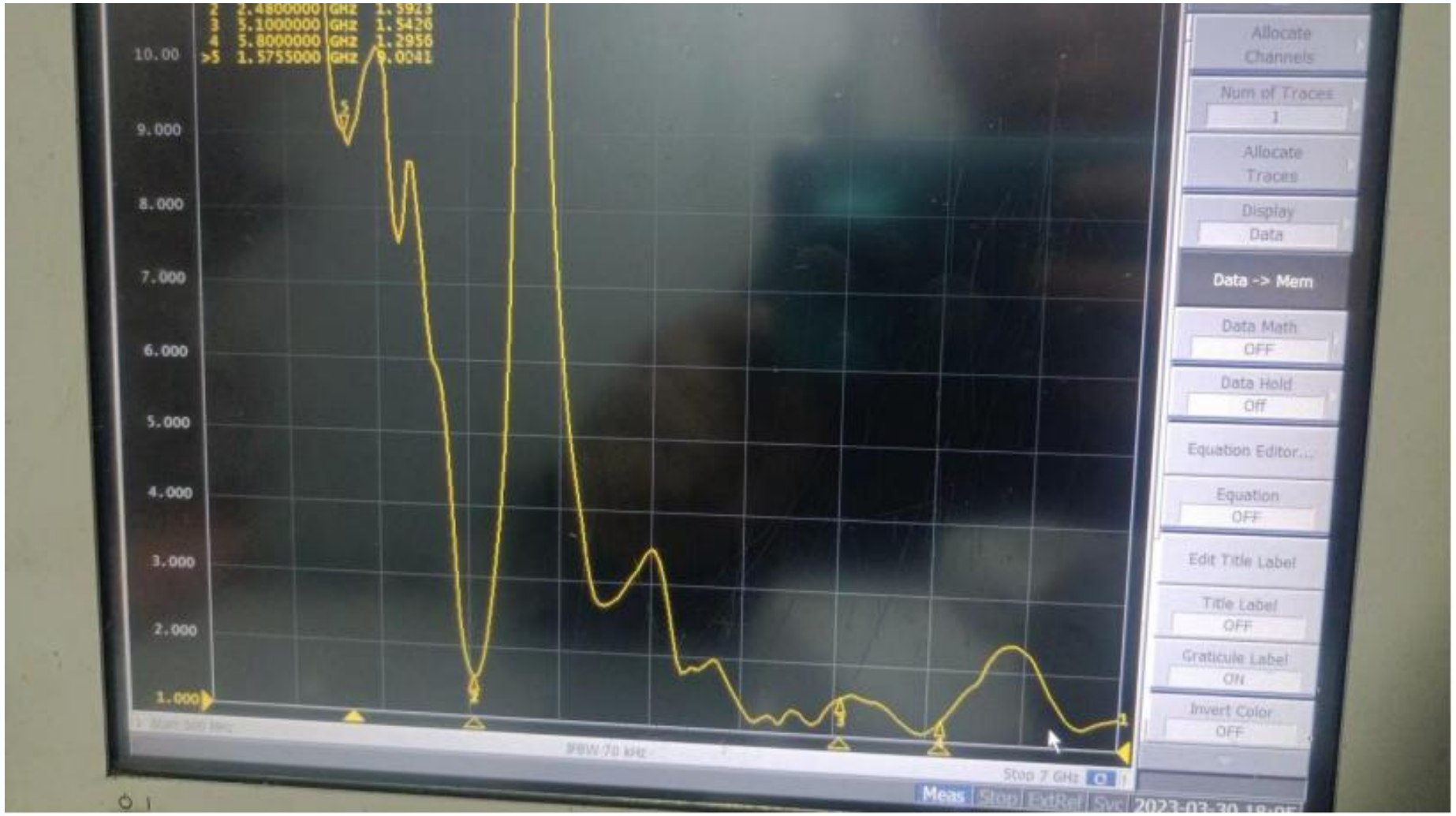


Test Result

3D Pattern——WIFI ANT 1#



Test Result VSWR&Log Mag&Smith(Ω) 2#



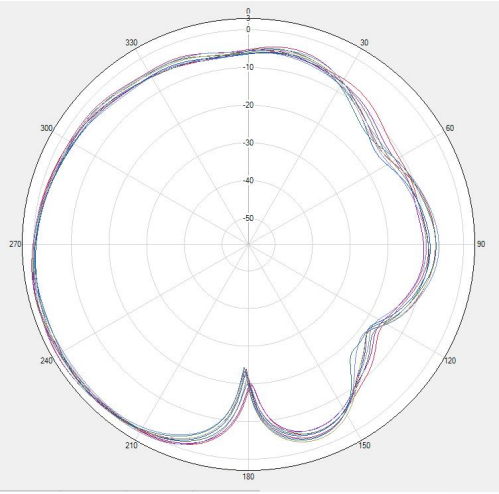
Test Result VSWR&Log Mag&Smith(Ω)

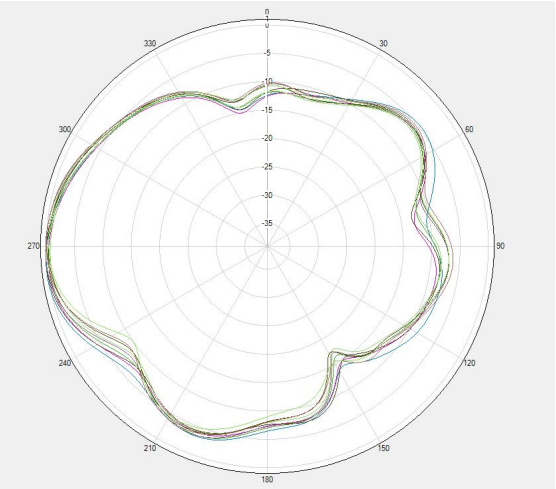
Gain & Efficiency——WIFI2#

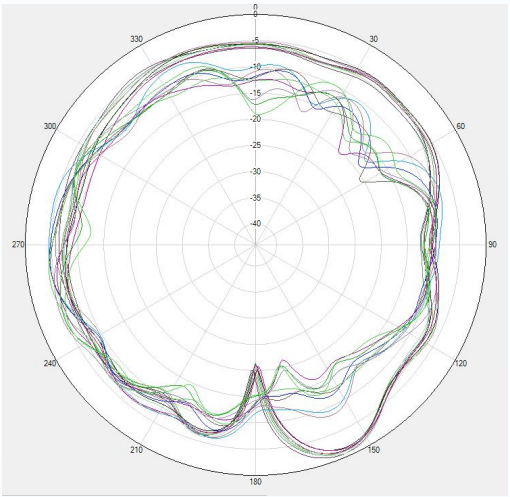
Frequency (MHz)	Max GAIN (dBi)	Efficiency (%)	Frequency (MHz)	Max GAIN (dBi)	Efficiency (%)
2400	0.79	36.31	5100	3.93	40.12
2410	1.12	37.76	5190	3.53	41.43
2420	1.29	39.17	5280	3.46	42.37
2430	1.26	40.28	5370	3.54	43.14
2440	1.35	39.87	5460	4.44	44.26
2450	1.17	38.66	5550	4.85	43.15
2460	0.97	37.65	5640	4.12	42.26
2470	0.87	36.43	5730	4.17	40.79
2480	1.34	35.79	5800	4.21	40.06

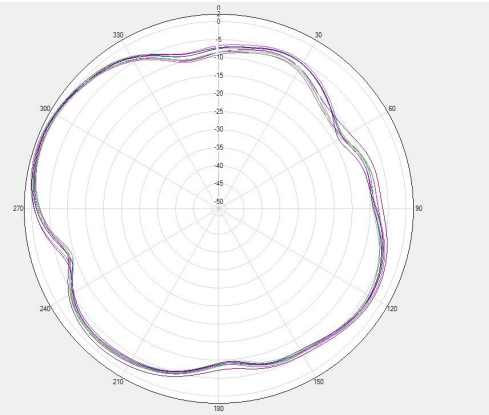
Test Result

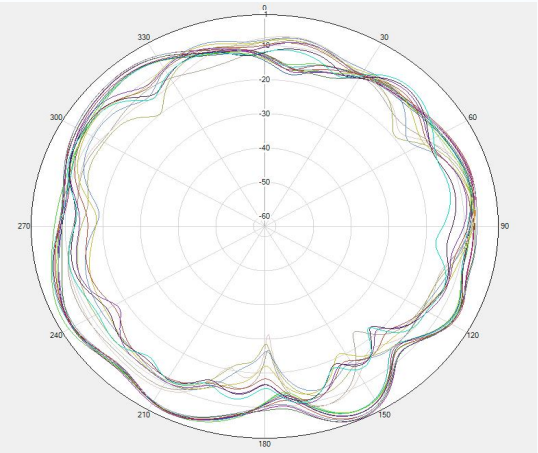
2D Pattern——WIFI ANT 2#

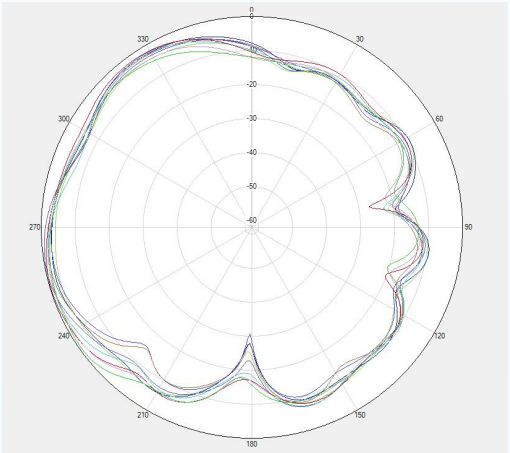






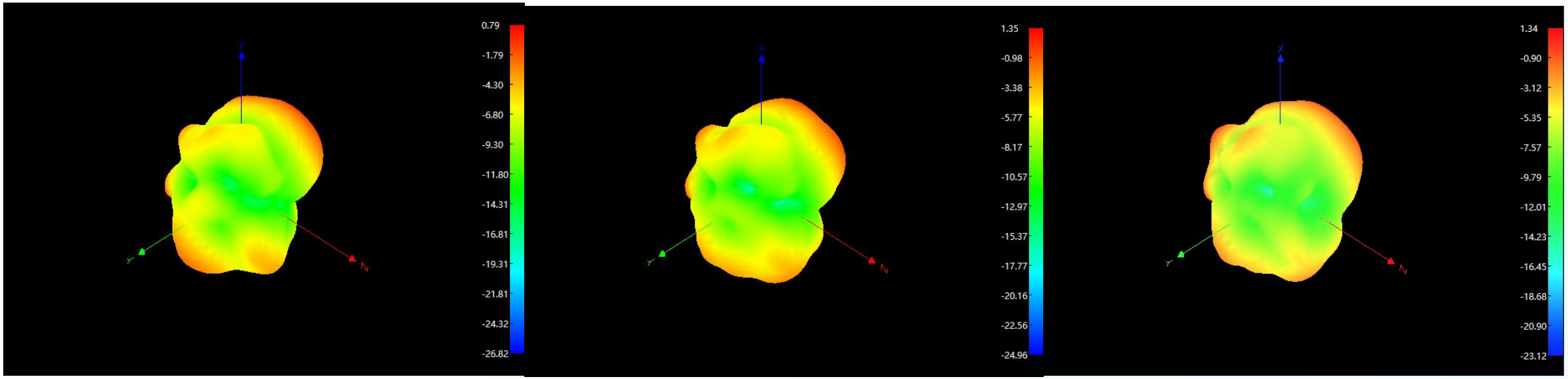






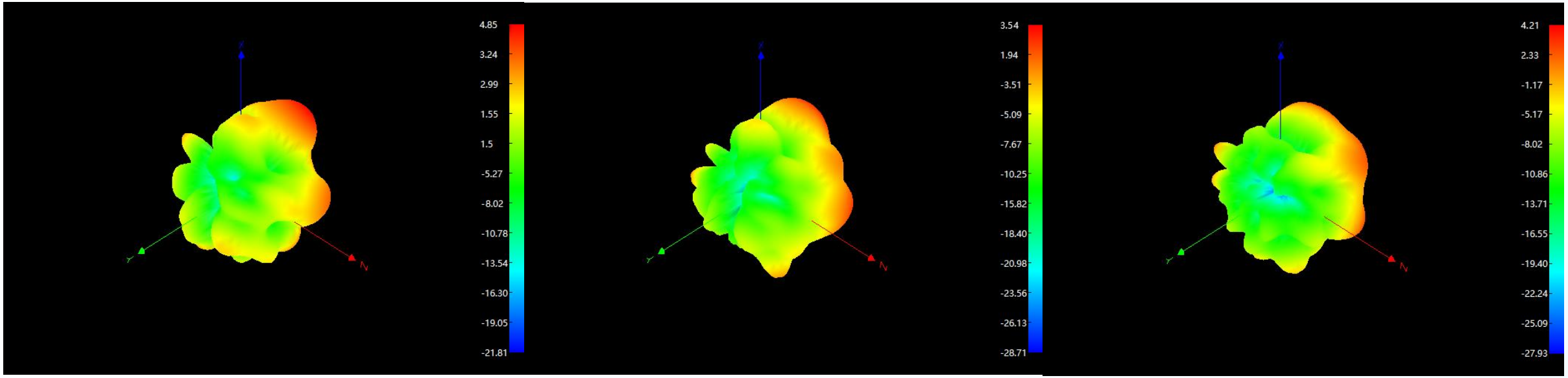
Test Result

3D Pattern——WIFI ANT 2#

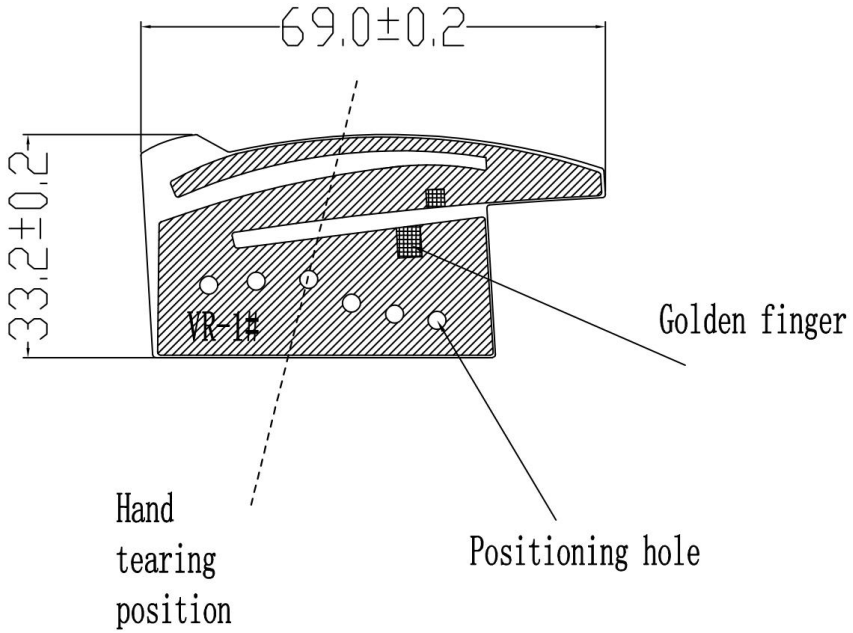


Test Result

3D Pattern——WIFI ANT 2#



ANT 1#



Remarks:

1、he adhesive is 3M 9471 300LSE, the viscosity is over 300MP, the shape of the adhesive is the same as that of the substrate, it is covered on the back of the substrate, and the adhesive is half-cut;

2、One-sided version of the material, half-to-half base material, good flexibility;

3、After the product is covered with oil, there is no crack on the surface after 180 bending, and the flexibility is good;

4、The surface of the golden finger is anti-oxidation ″,and there must be no oxidation phenomenon. The joint of copper foil has no crack and no conduction phenomenon after 180 bending;

5、The precise tolerance range of wiring and holes: ±0.03mm, and the tolerance of overall dimensions is controlled within 0.2mm;

6、The dimension marked with ★ is strictly controlled, the dimension marked with is the key dimension,and the dimension not marked is measured according to the CAD electronic drawing file 1:1;

7、Surface printing, specific content and location as shown in the figure;

8、After the non-appearance is cut, the sample will be sent to our company.

Gold plating area

Line road area

V.1 V.2 V.3 V.4 V.5 V.6

-------Release paper hand tear position

No.	Layer	Description(Thickness)	Manufacturer &P/N
1	Gum	3M9471LM	3M
2	Base material	KUM-800F NHG3<10μm>	Cailungeti
3	Stamp-pad ink	PSM-800FSDM-ASMH-80	Youli

Shenzhen Heyixun Technology Co., Ltd

The third method			
0~10	±0.10	○	0.02
10~20	±0.12	◎	Ø0.03
20~40	±0.15	⊥	0.02
40~	±0.20	▱	0.04
		⌓	0.02

Models	VR	Date	2023-10-30	Draft	Zhu Zengyuan	Page	1 of 1
Name	WIFI-1#		Design	Check		Check and ratify	
Material code	HLX0080-VR-WIFI-V1	Structure	Zhu Zengyuan				
Material	FPC+3M9471	Frequency	Xu Liang				
			Unit	mm	Proportion 1:1	Version	REV:A

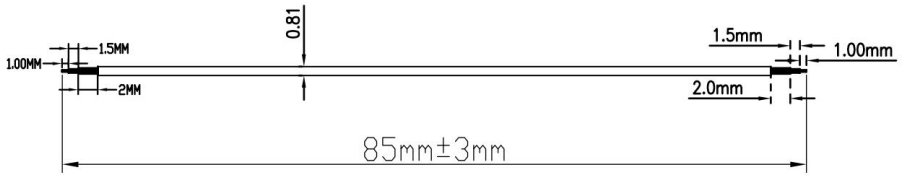
ANT 1#

The fourth generation terminals face down.

一、Technical parameter
1. Rated voltage: 60VAC (R.M.S)
2. Frequency test range: 0~6GHz
3. Characteristic impedance: 50±2 ohms
4. Operating temperature range: -40℃~+85℃
5. Working humidity: 95%R.H.Max.

二、Behaviour of electricity
1. Insulation impedance: 500M ohms
2. Contact resistance: centrePIN needle 25m ohms Max.
External iron shell 15m ohms Max.
3. Voltage withstand: 200V AC 2 Min
4. line loss: 900M Hz 0.5dB Max
1800M Hz 0.7dB Max
5. VSWR: 0.1~3GHz 1.3 Max.
3~6GHz 1.5 Max.

三、Mechanical character
1. Withdrawal force: Initial stage 4N Min. 30Huihou 2N Min.
2. Pulling force: 10N Min



Remarks: Four-generation terminal 0.81 wire is used. Total length:85mm

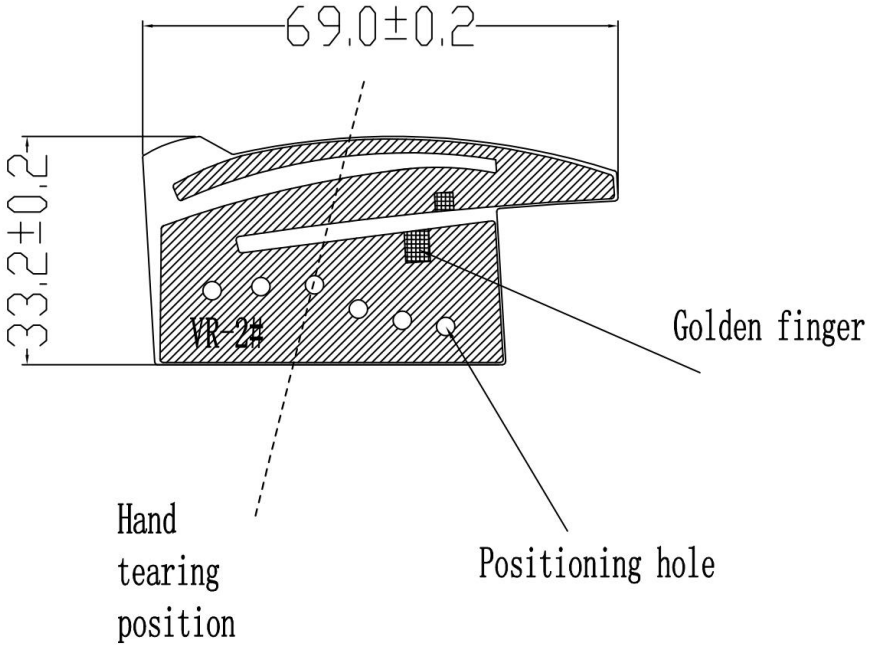
Gold plating area V.1 V.2 V.3 V.4 V.5 V.6
Line road area
Release paper hand tear position

Shenzhen Heyixun Technology Co., Ltd

The third method				Models	VR	Date	2023-10-30	Draft	Zhu Zengyuan	Page	1 of 1
0~10	±0.10	○	0.02	Name	WIFI-1#		Design	Check		Check and ratify	
10~20	±0.12	◎	Ø0.03	Material code	HLX0080-VR-WIFI-V1	Structure	Zhu Zengyuan				
20~40	±0.15	⊥	0.02	Material	FPC+3M9471	Frequency	Xu Liang				
40~	±0.20	▱	0.04								
		⌰	0.02				Unit	mm	Proportion 1:1	Version	REV:A

No.	Layer	Description(Thickness)	Manufacturer &P/N
1	Gum	Description(Thickness)	Manufacturer &P/N
2	Base material	0.81	Tianmai
3	Stamp-pad ink	1st generation	Zep

ANT 2#



Remarks:

1、he adhesive is 3M 9471 300LSE, the viscosity is over 300MP, the shape of the adhesive is the same as that of the substrate, it is covered on the back of the substrate, and the adhesive is half-cut;

2、One-sided version of the material, half-to-half base material, good flexibility;

3、After the product is covered with oil, there is no crack on the surface after 180 bending, and the flexibility is good;

4、The surface of the golden finger is anti-oxidation ″,and there must be no oxidation phenomenon. The joint of copper foil has no crack and no conduction phenomenon after 180 bending;

5、The precise tolerance range of wiring and holes: ±0.03mm, and the tolerance of overall dimensions is controlled within 0.2mm;

6、The dimension marked with ★ is strictly controlled, the dimension marked with is the key dimension,and the dimension not marked is measured according to the CAD electronic drawing file 1:1;

7、Surface printing, specific content and location as shown in the figure;

8、After the non-appearance is cut, the sample will be sent to our company.

Gold plating area

Line road area

-------Release paper hand tear position

V.1 V.2 V.3 V.4 V.5 V.6

No.	Layer	Description(Thickness)	Manufacturer &P/N
1	Gum	3M9471LM	3M
2	Base material	KUM-800F NHG3<10μm>	Cailungeti
3	Stamp-pad ink	PSM-800FSDM-ASMH-80	Youli

Shenzhen Heyixun Technology Co., Ltd											
The third method				Models	VR	Date	2023-10-30	Draft	Zhu Zengyuan	Page	1 of 1
0~10	±0.10	○	0.02	Name	WIFI-2#		Design	Check		Check and ratify	
10~20	±0.12	◎	Ø0.03	Material code	HLX0080-VR-WIFI-V1	Structure	Zhu Zengyuan				
20~40	±0.15	⊥	0.02	Material	FPC+3M9471	Frequency	Xu Liang				
40~	±0.20	▱	0.04								
		∠	0.02				Unit	mm	Proportion 1:1	Version	REV:A

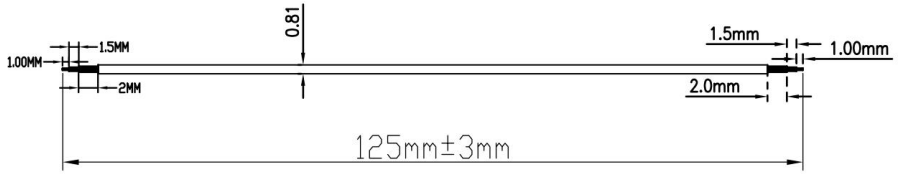
ANT 2#

The fourth generation terminals face down.

一、Technical parameter
1. Rated voltage: 60VAC (R.M.S)
2. Frequency test range: 0~6GHz
3. Characteristic impedance: 50±2 ohms
4. Operating temperature range: -40℃~+85℃
5. Working humidity: 95%R.H.Max.

二、Behaviour of electricity
1. Insulation impedance: 500M ohms
2. Contact resistance: centrePIN needle 25m ohms Max.
External iron shell 15m ohms Max.
3. Voltage withstand: 200V AC 2 Min
4. line loss: 900M Hz 0.5dB Max
1800M Hz 0.7dB Max
5. VSWR: 0.1~3GHz 1.3 Max.
3~6GHz 1.5 Max.

三、Mechanical character
1. Withdrawal force: Initial stage 4N Min. 30Huihou 2N Min.
2. Pulling force: 10N Min



Remarks: Four-generation terminal 0.81 wire is used. Total length:125mm

Gold plating area V.1 V.2 V.3 V.4 V.5 V.6
Line road area
Release paper hand tear position

Shenzhen Heyixun Technology Co., Ltd

The third method				Models	VR	Date	2023-10-30	Draft	Zhu Zengyuan	Page	1 of 1
0~10	±0.10	○	0.02	Name	WIFI-2#		Design	Check		Check and ratify	
10~20	±0.12	◎	Ø0.03	Material code	HLX0080-VR-WIFI-V1	Structure	Zhu Zengyuan				
20~40	±0.15	⊥	0.02	Material	FPC+3M9471	Frequency	Xu Liang				
40~	±0.20	▱	0.04								
		⌰	0.02				Unit	mm	Proportion 1:1	Version	REV:A

No.	Layer	Description(Thickness)	Manufacturer &P/N
1	Gum	Description(Thickness)	Manufacturer &P/N
2	Base material	0.81	Tianmai
3	Stamp-pad ink	1st generation	Zep

Shenzhen Heyixun Technology Co., Ltd

Landline: 0755-23591525

Fax: 0755-23591525

Address: Room 1903-1905, Building 2, Jiufang Plaza, Tiezai Road, Gongle Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong Province, China

WORK REPORT

Thank you for watching