



Shenzhen SignalSen Telecom Technology Co , .Ltd

WIFI Antenna Specification

Material No: W574-1B175B-A

Note: The optimized antenna is placed in the plastic area, staggered with the screen

Customer: Zhixingsheng		Project Name: Photo Frame
Frequency: WIFI6	Date: 2024.10.14	Ver: R:A

1. Project information and Electrical Specification

Those specifications were specially defined for WIFI model, and all characteristics were measured under the model's handset testing jig.

1-1 Antenna picture

1-2 Frequency Band:

Frequency Band	MHz
WiFi	2400-2500/5050-5850

1-3 Impedance matching

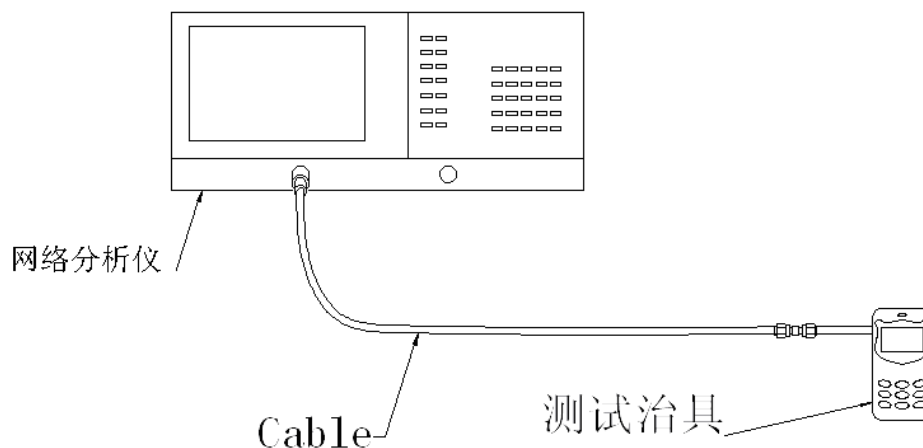
天线原匹配

2.VSWR

2-1 Measuring Method:

1. A 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR,
2. Keeping this jig away from metal at least 20cm.

测试示意图如下:



2-2 S11 parameter values- WIFI6-客户方案样机

频率 (MHZ)	2400	2500	5050	5400	5850
驻波	1.52	1.63	2.04	1.17	1.50



S11 parameter values- WIFI6-我司天线样机

频率 (MHZ)	2400	2500	5050	5400	5850
驻波	1.7	1.23	1.11	1.17	1.5037



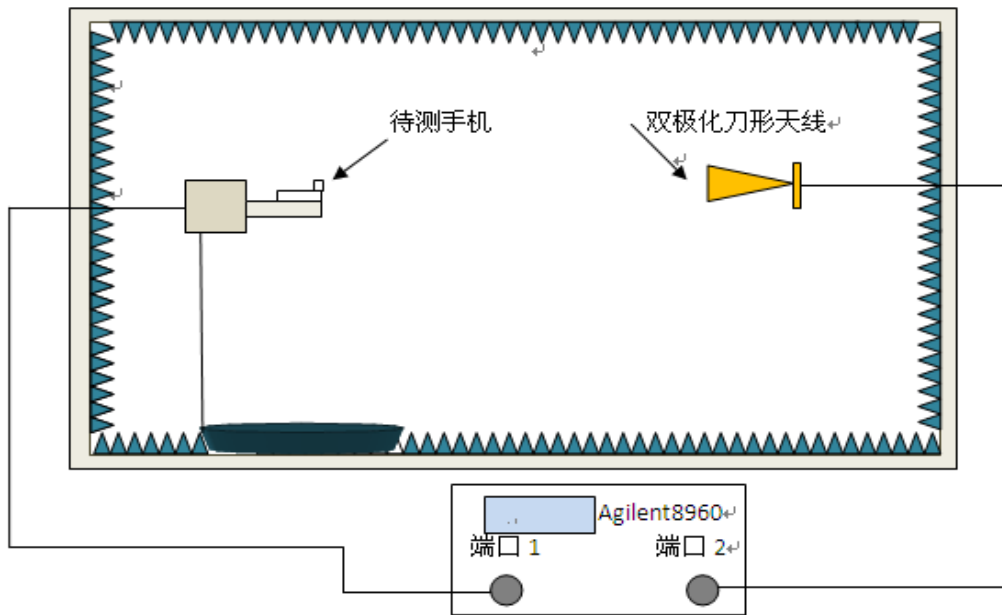
3. Efficiency and Gain

***measuring and test instruments:**

微波暗室, Agilent 网络分析仪, Agilent 频谱分析仪, 8960 综合测试仪, 标准天线

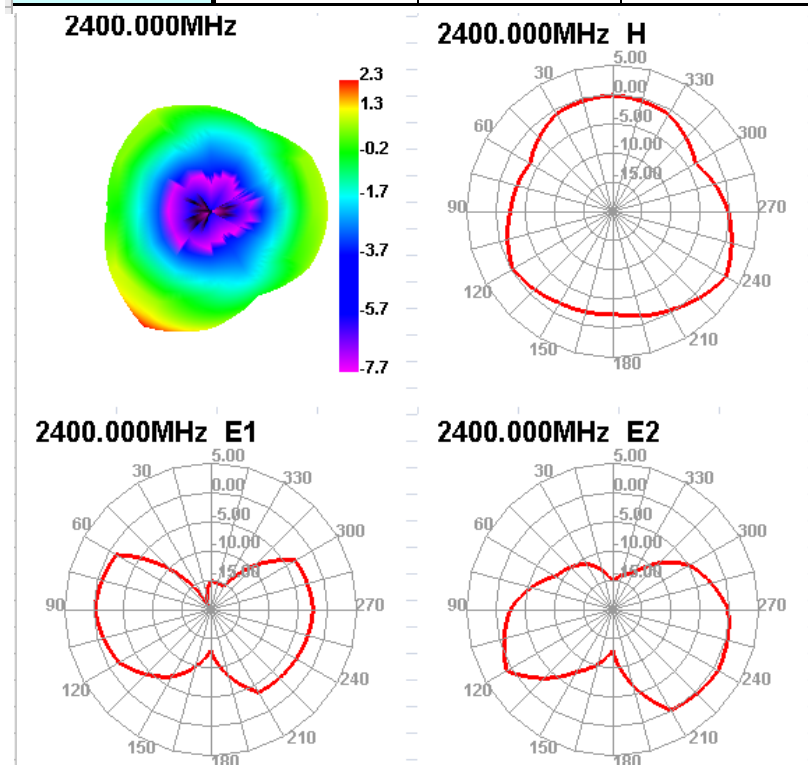
*test method:

equipment 以 H 面放于转台中心位置固定，与喇叭天线中心位置在同一个水平线上。

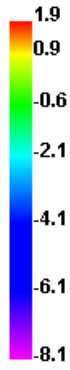
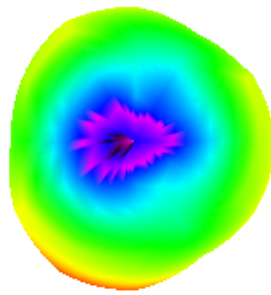


3-1 Efficiency/Gain- WIFI6-客户方案样机

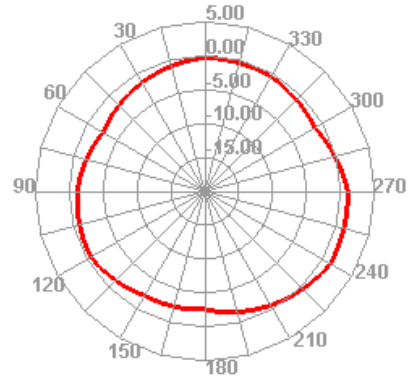
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	57.5	-2.4	2.33
2450	61.37	-2.12	1.86
2500	66.75	-1.76	1.96



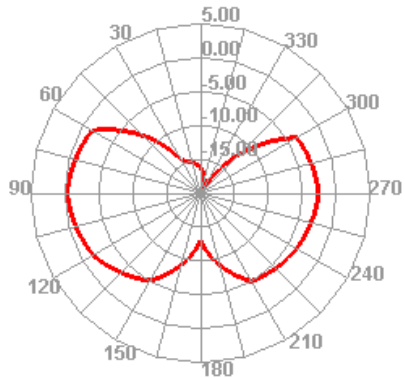
2450.000MHz



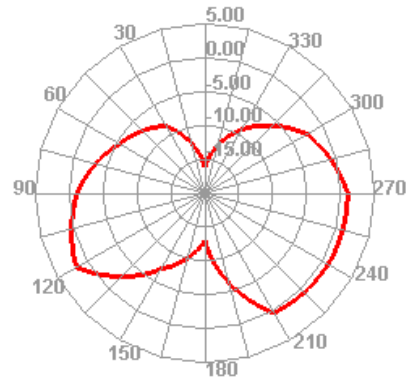
2450.000MHz H



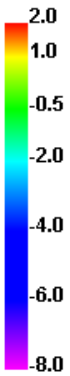
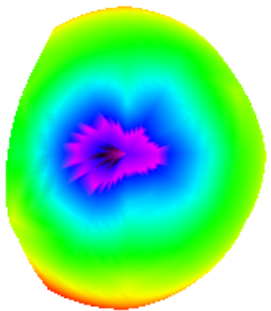
2450.000MHz E1



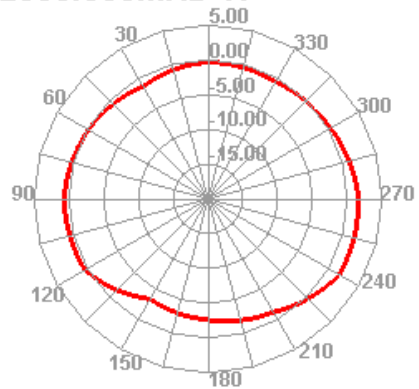
2450.000MHz E2



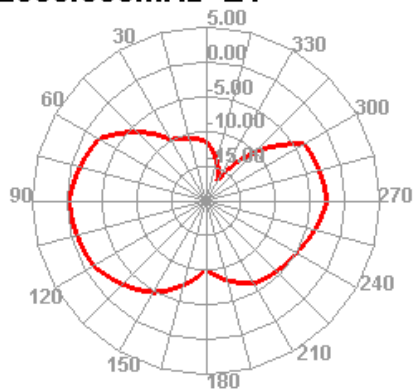
2500.000MHz



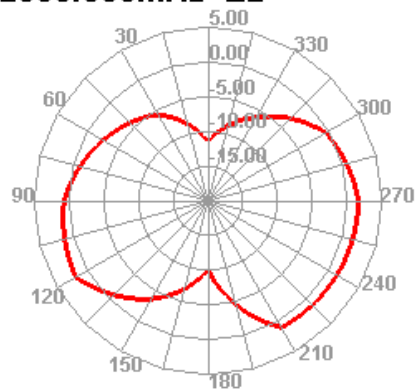
2500.000MHz H



2500.000MHz E1

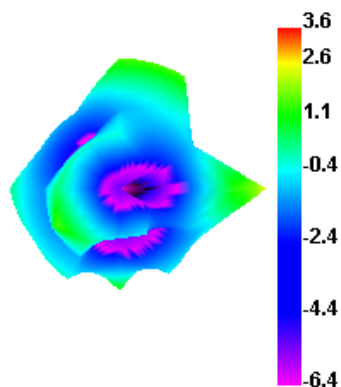


2500.000MHz E2

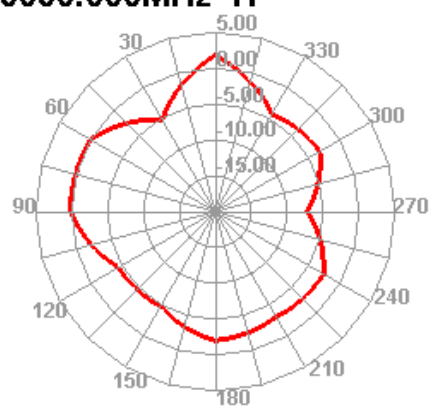


Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5050	52.34	-2.81	3.63
5450	62.44	-2.05	3.84
5850	57.16	-2.43	4.67

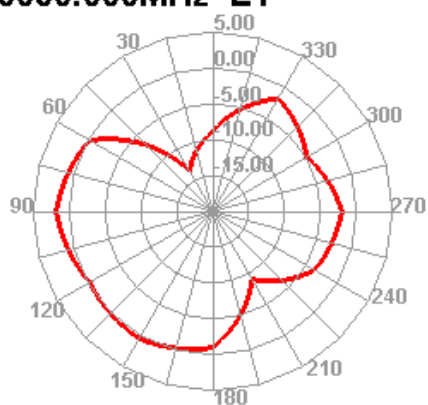
5050.000MHz



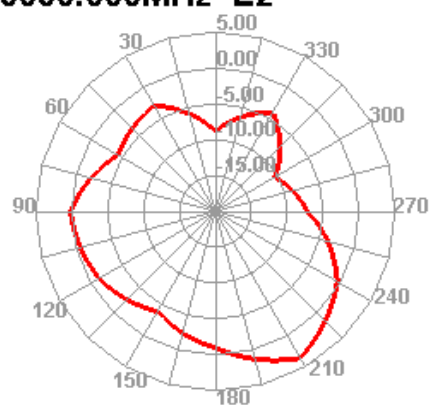
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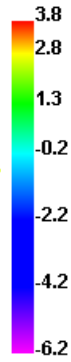
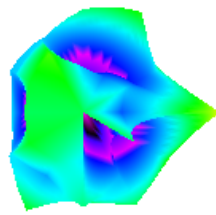
5050.000MHz E1



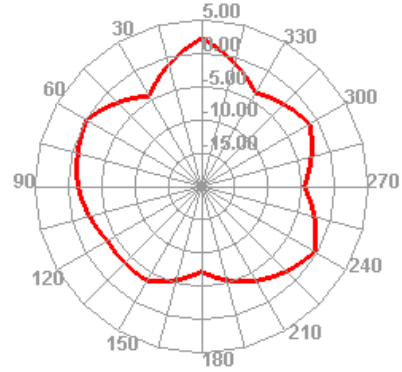
5050.000MHz E2



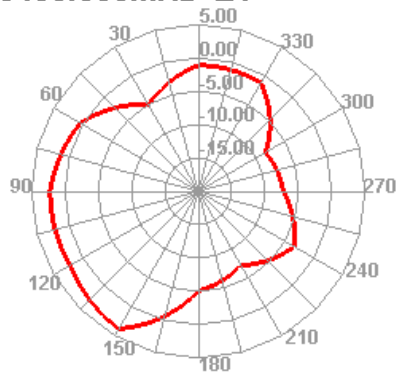
5450.000MHz



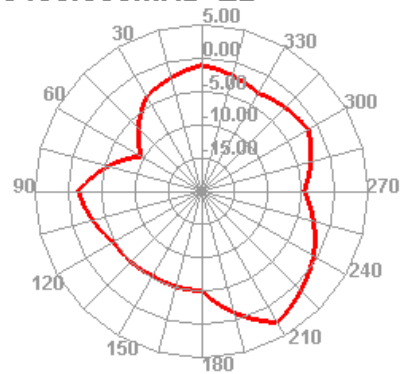
5450.000MHz H



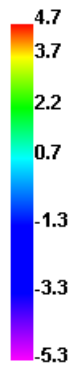
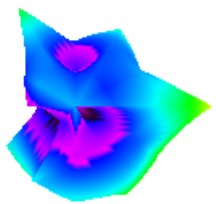
5450.000MHz E1



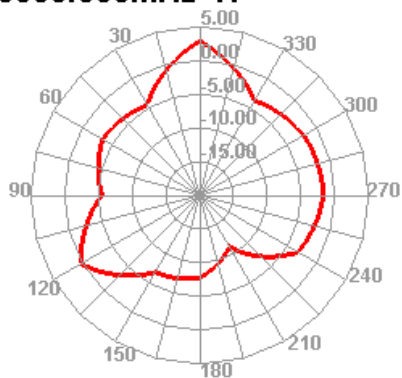
5450.000MHz E2



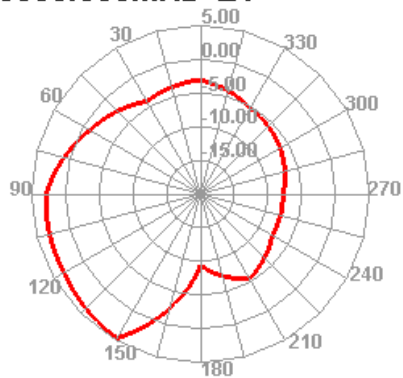
5850.000MHz



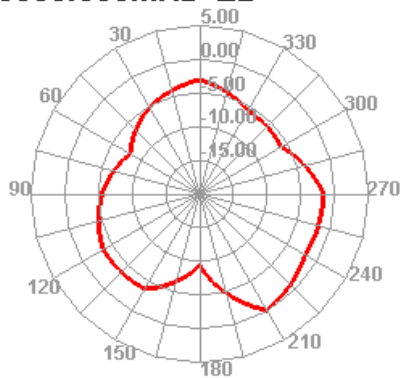
5850.000MHz H



5850.000MHz E1



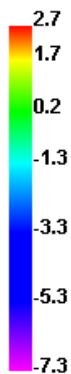
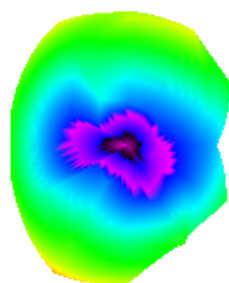
5850.000MHz E2



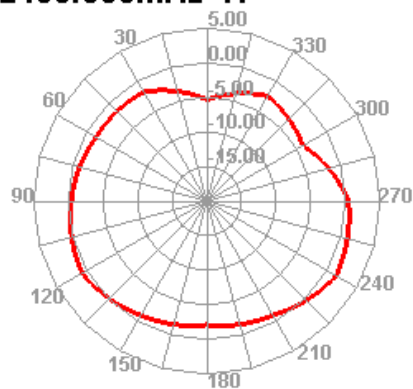
Efficiency/Gain- WIFI6-我司天线样机

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	68.87	-1.62	2.72
2450	73.55	-1.33	2.35
2500	72.36	-1.4	2.05

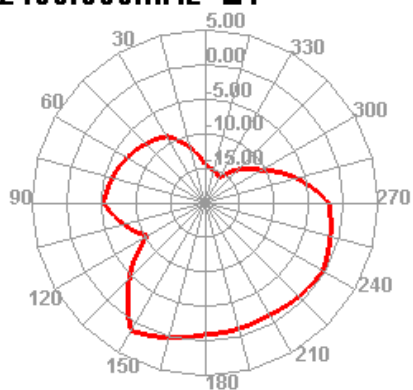
2400.000MHz



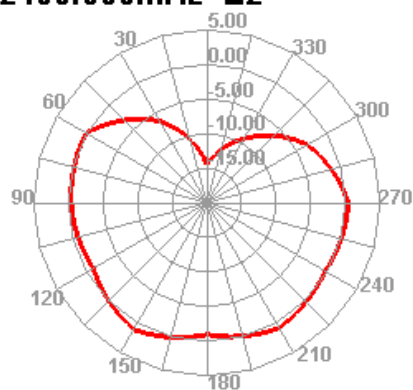
2400.000MHz H



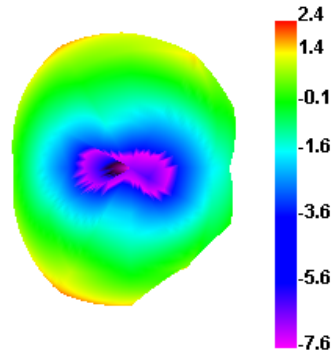
2400.000MHz E1



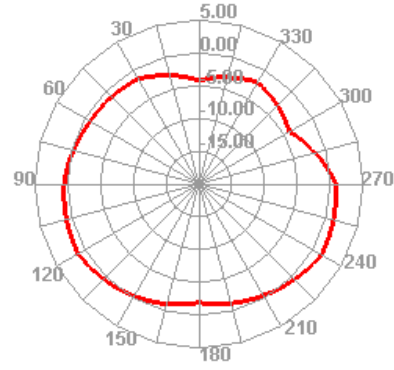
2400.000MHz E2



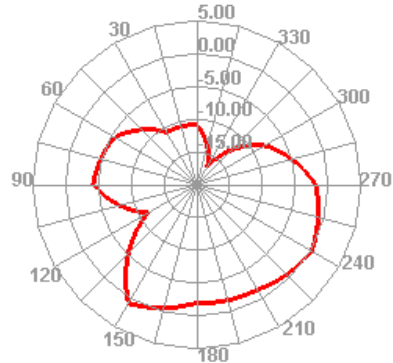
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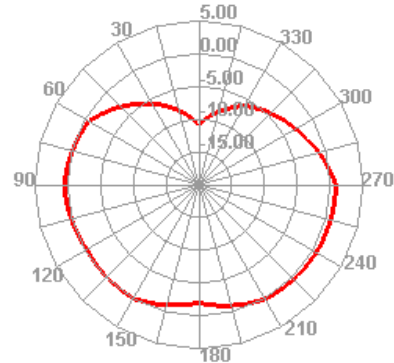
2450.000MHz H



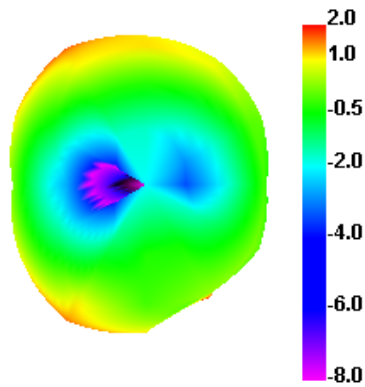
2450.000MHz E1



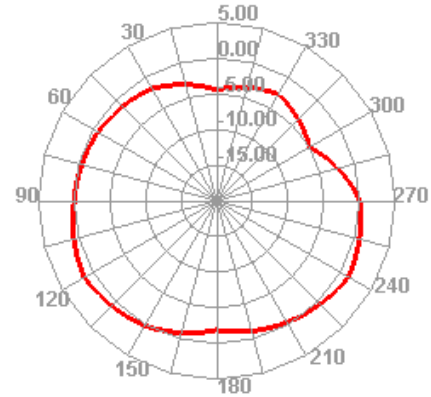
2450.000MHz E2



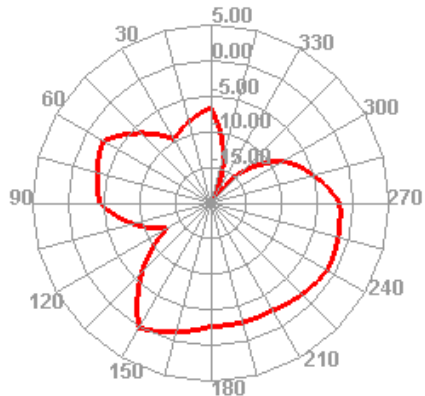
2500.000MHz



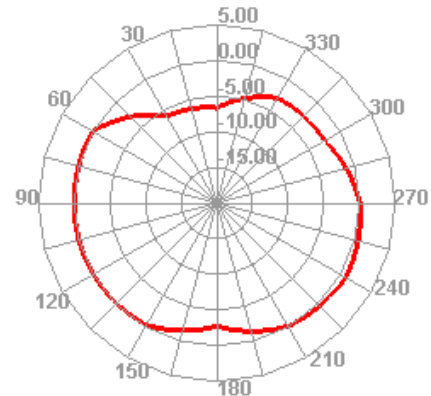
2500.000MHz H



2500.000MHz E1

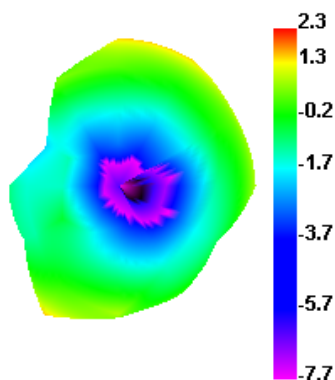


2500.000MHz E2

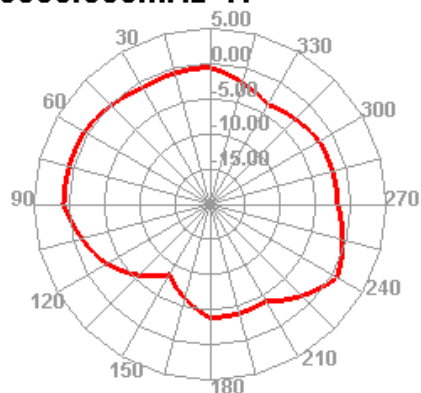


Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5050	62.39	-2.05	2.26
5450	63.55	-1.97	2.94
5850	62.93	-2.01	3.14

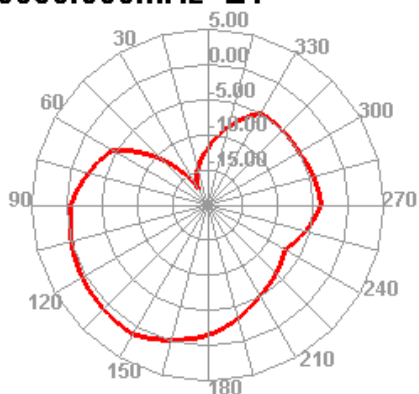
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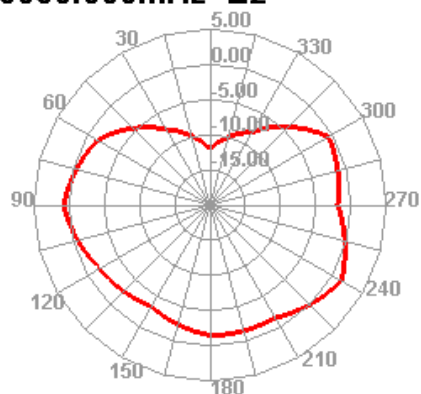
5050.000MHz H



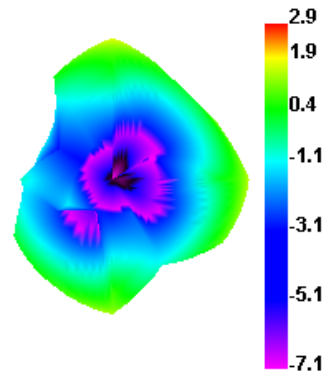
5050.000MHz E1



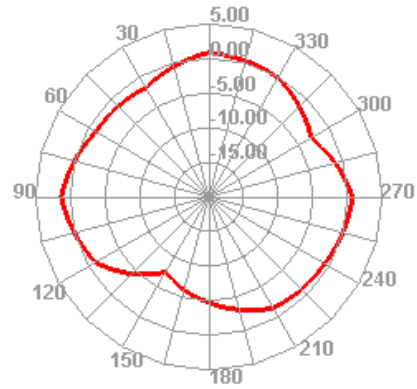
5050.000MHz E2



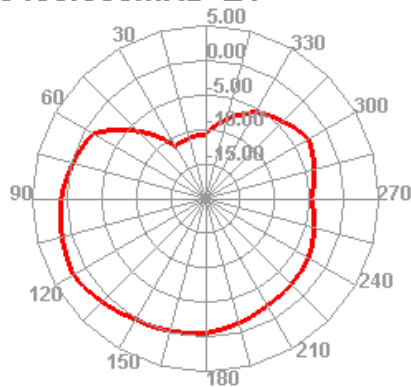
5450.000MHz



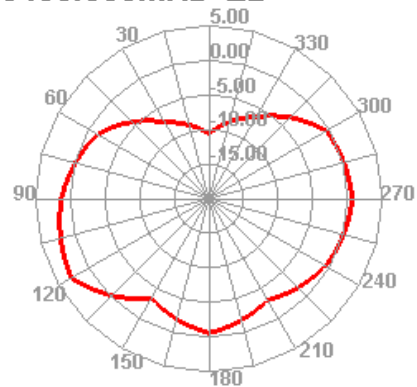
5450.000MHz H



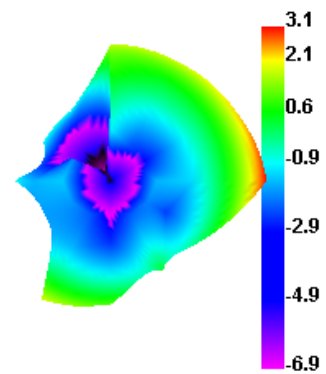
5450.000MHz E1



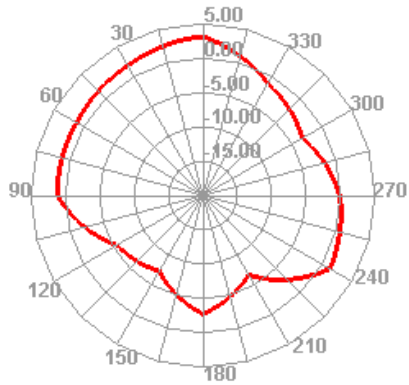
5450.000MHz E2



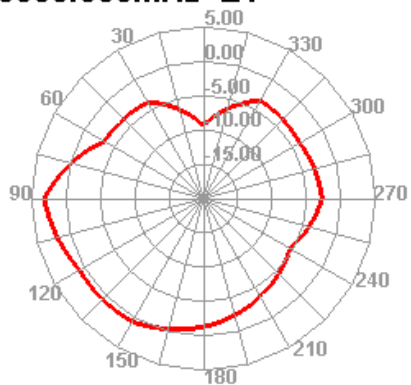
5850.000MHz



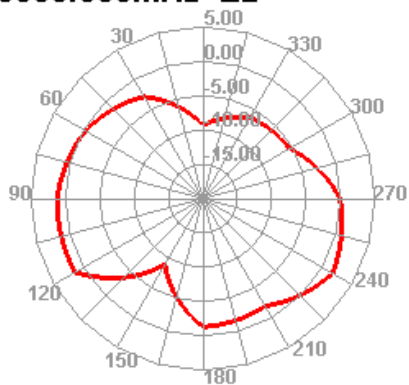
5850.000MHz H



5850.000MHz E1



5850.000MHz E2



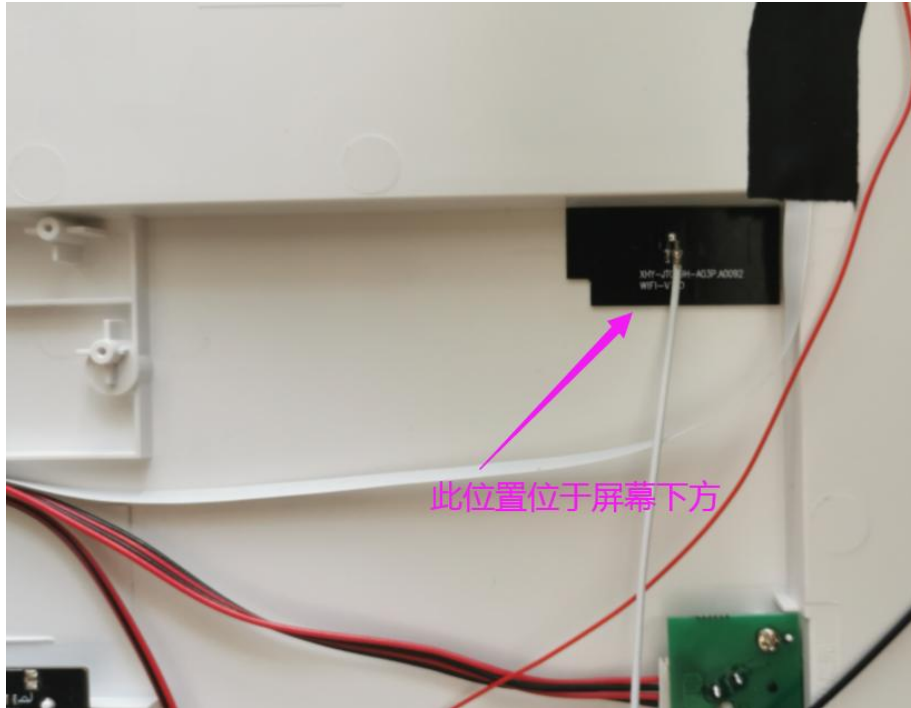
4. The production index

天线量产时，以驻波比作为量产测试标准。

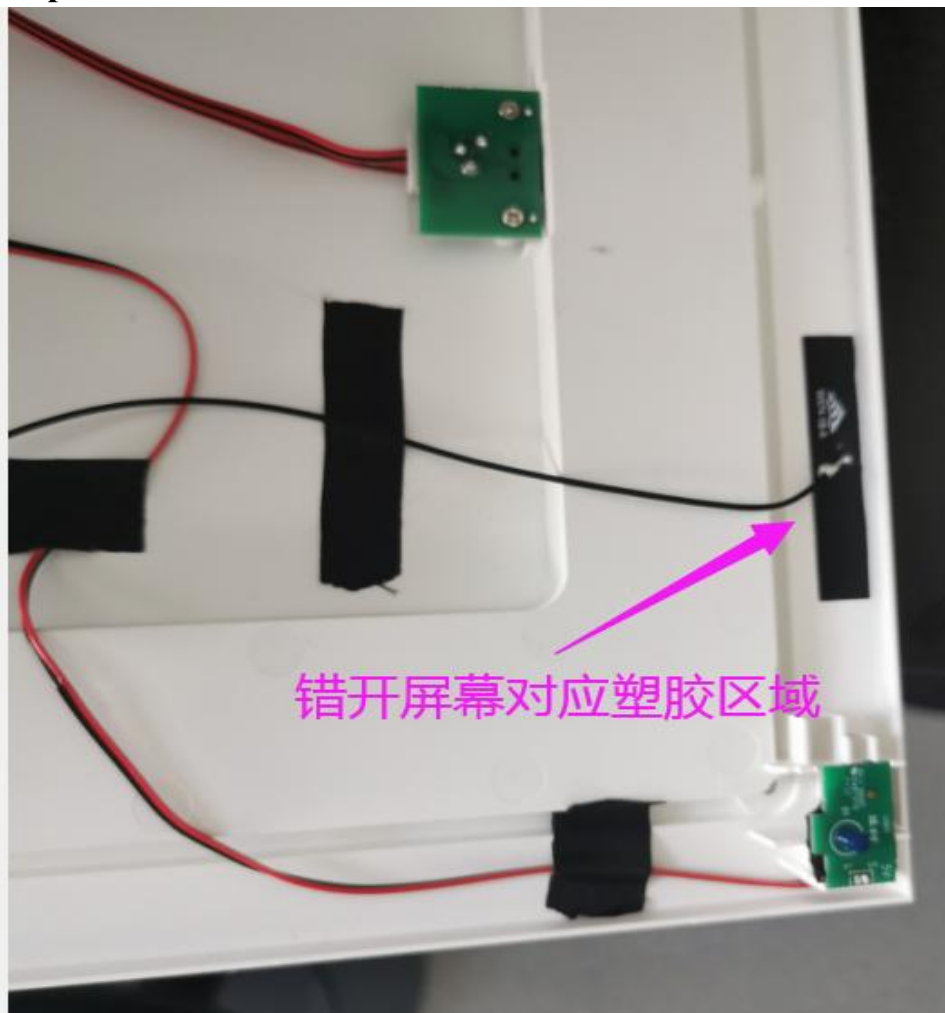
根据项目本身的差异,给出如下标准:

频率	量产标准
WIFI6 (2400-2500/5050-5850Mhz)	VSWR (量产产品) < VSWR(设计样品)+0.5

Customer prototype antenna location:



Our antenna placement location:



Note: The gain testing equipment and environment are shown in the figure:

