深圳市泓德致新科技有限公司

金森 X8　　双频天线

WIFI 双频天线规格书

客户：　深圳金森电子科技有限公司		项目名:X8 双频
频段：2.4G/5G	日期：2022.09.01	版本：R:A
研发　结构：诸葛冲 射频：孙建		批准：张林
客户审核：	客户批准：	

1. 2.4-5.8WIFI 主天线　3db 小折叠天线 卡扣 4 代端子 外露 80MM

2.WIFI 副天线　J127C　　0.81 线长 40mm 4 代端子

contents

1. Project information and Electrical Specification

Those specifications were specially defined for 2.4G/5G model, and all characteristics were measured under the model's handset testing jig .

1-1Antenna picture

1-2 Frequency Band:

Frequency Band	MHz
2.4G/5G	2400-2500/4950-5850

1-3 Impedance matching

天线原匹配

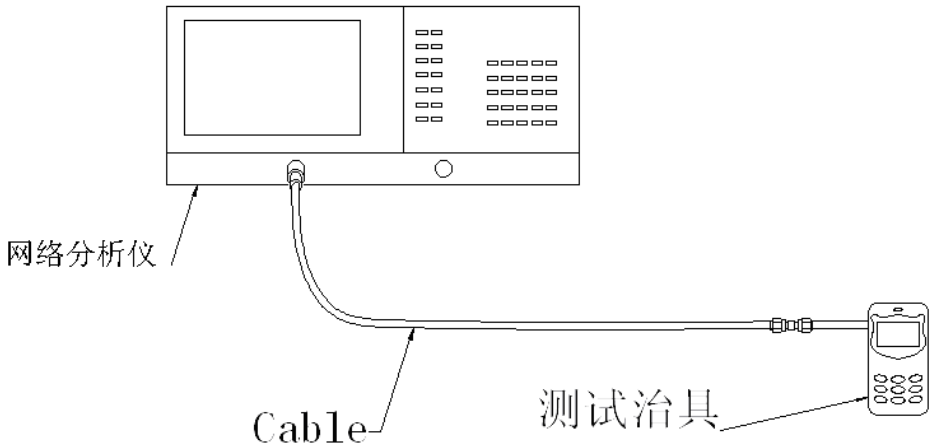
2.VSWR

2-1 Measuring Method:

1. A 50Ωcoaxial 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

频率（MHZ）	2400	2500	4950	5400	5850
驻波	1.3	1.2	1.78	1.63	1.23

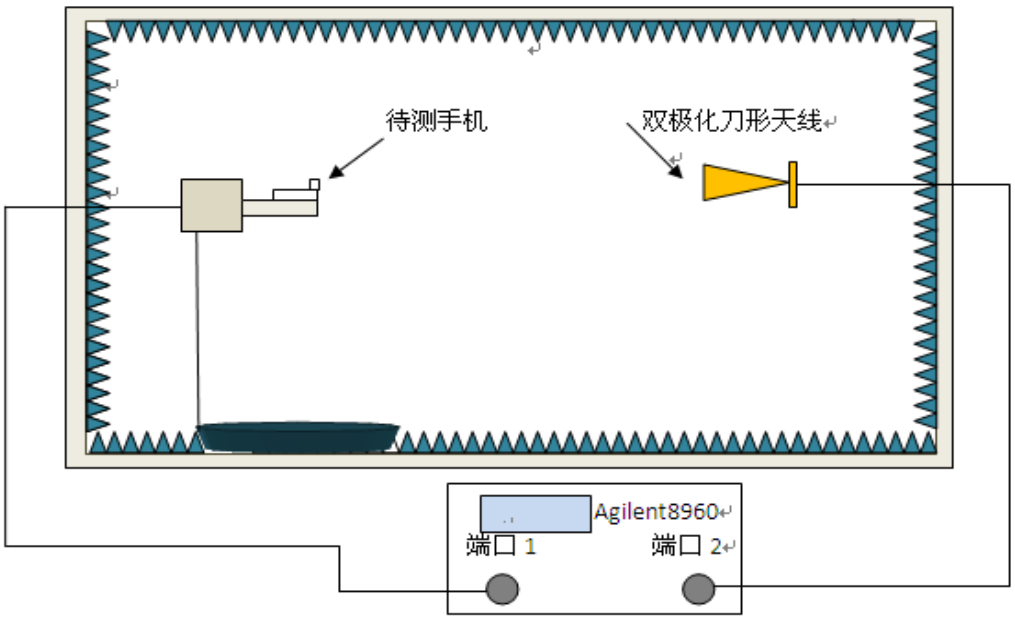
3. Efficiency and Gain

*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:

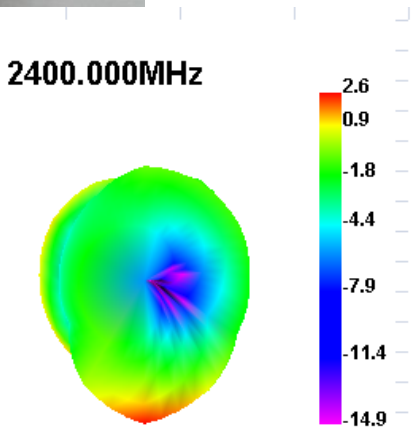
equipment 以 H 面放于转台中心位置固定，与喇叭天线中心位置在同一个水平线上。

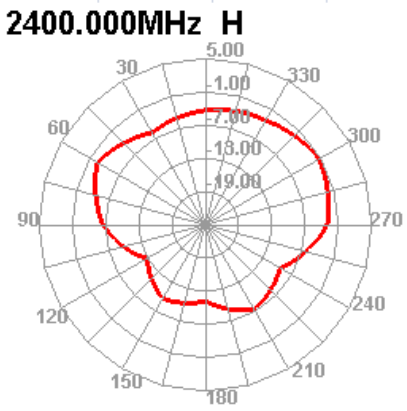


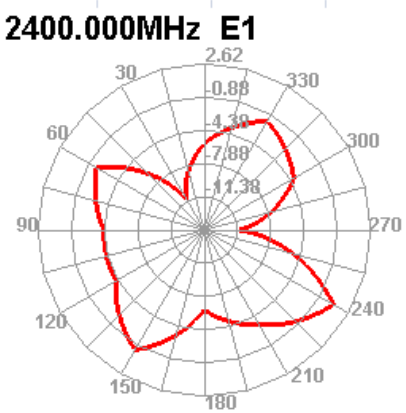
3-1 Efficiency/Gain- WIFI

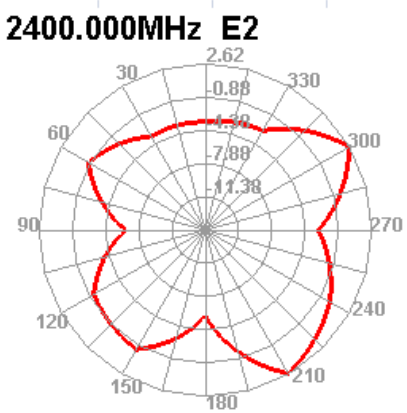
FPC Antenna for 2.4G WIFI

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2350	45.39	-3.43	0.66
2360	46.29	-3.35	0.45
2370	42.32	-3.73	0.1
2380	45.63	-3.41	0.42
2390	46.33	-3.34	0.72
2400	47.19	-3.26	1.2
2410	52.33	-2.81	1.47
2420	48.42	-3.15	1.41
2430	51.69	-2.87	1.8
2440	51.69	-2.87	1.79
2450	45.63	-3.41	0.42
5710	55.82	-2.53	1.76
5760	54.26	-2.66	1.23
5800	50.8	-2.94	1.29
5850	48.42	-3.15	1.41
5890	51.69	-2.87	1.8

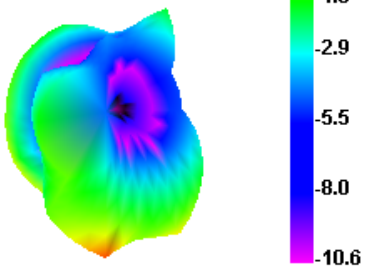




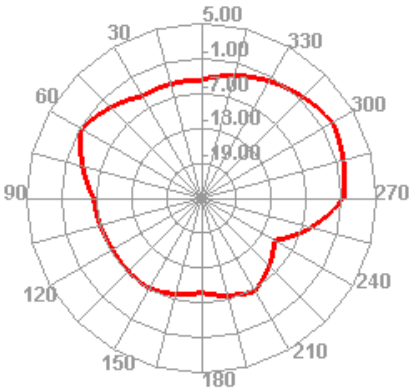




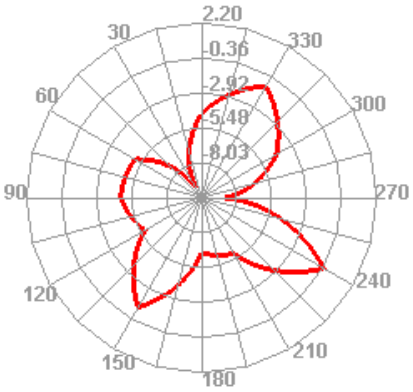
2500.000MHz



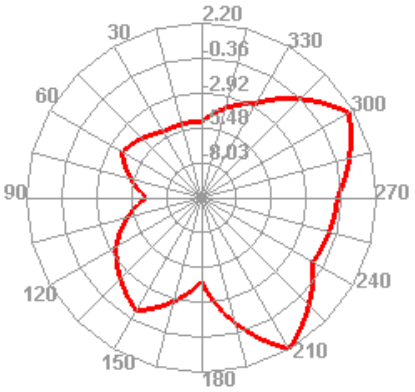
2500.000MHz H



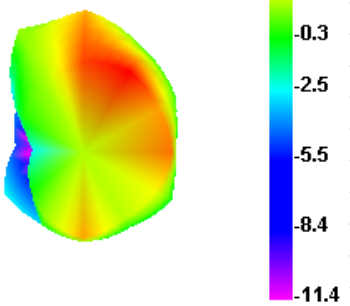
2500.000MHz E1



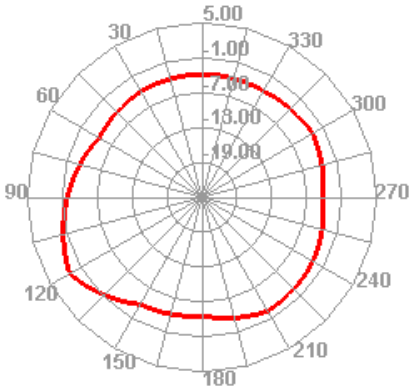
2500.000MHz E2



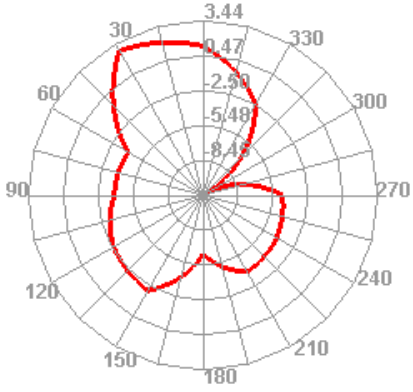
5850.000MHz



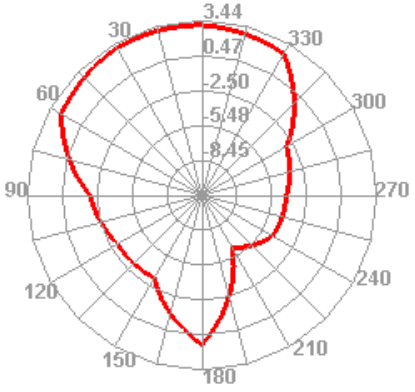
5850.000MHz H



5850.000MHz E1

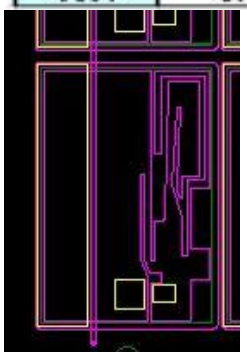


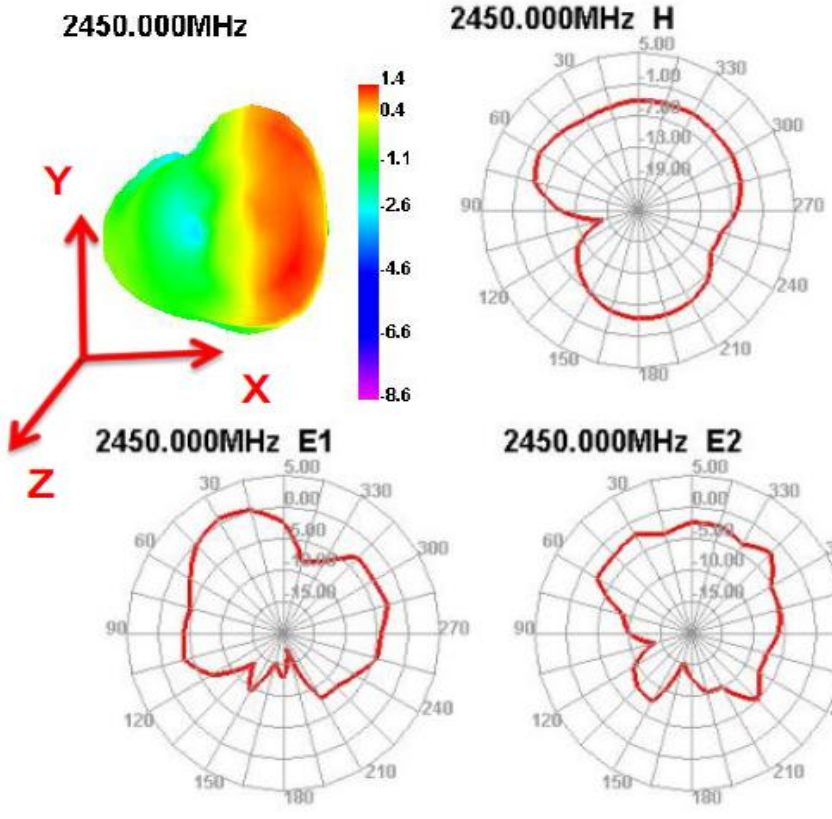
5850.000MHz E2

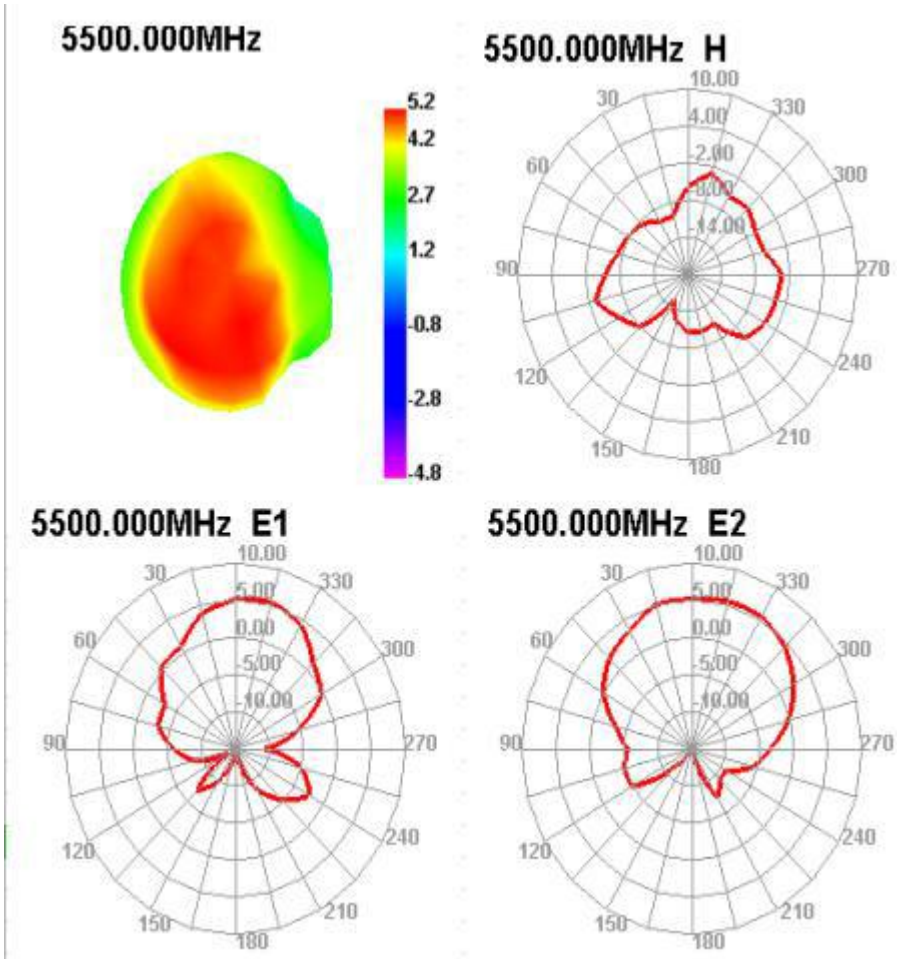


External Antenna for 2.4G&5.8G

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	51.85	-2.85	1.79
2410	54.73	-2.62	2.23
2420	53.84	-2.69	1.81
2430	57	-2.44	1.72
2440	55.77	-2.54	1.55
2450	60.9	-2.15	1.94
2460	55.64	-2.55	1.68
2470	59.17	-2.28	1.95
2480	59.58	-2.25	2.27
2490	62.16	-2.06	2.7
2500	57.17	-2.43	2.35
5150	37.65	-4.24	-0.15
5240	36.08	-4.43	0.17
5750	45.31	-3.44	2.43
5850	46.57	-3.32	2.96

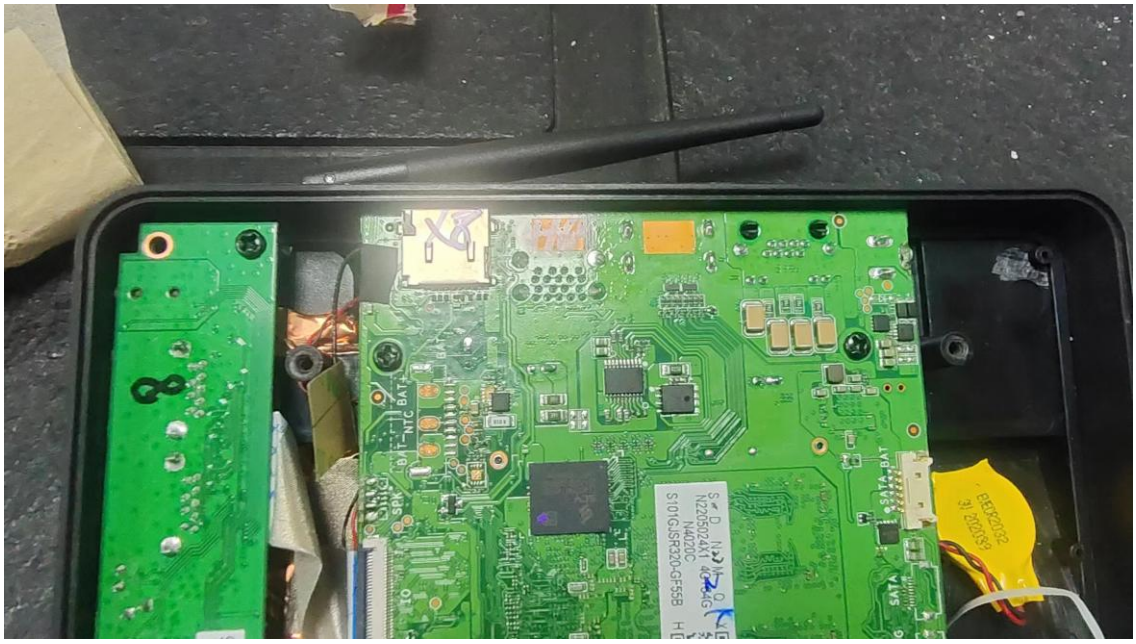






4. The production index

5. 天线实物图



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
WIFI (2400-2500Mhz/4950-5850MHZ)	VSWR（量产产品）<VSWR(设计样品)+0.5