



深圳市亿嘉欣盛科技有限公司

Shenzhen YiJiaXinSheng Technology Co., Ltd.

DV6068Y天线规格书/

Antenna

Specification

DV6068Y 板载天线

DV6068Y Onboard Antenna

文件版本/Version: V2.0

生成日期/Date: 2022-07-26

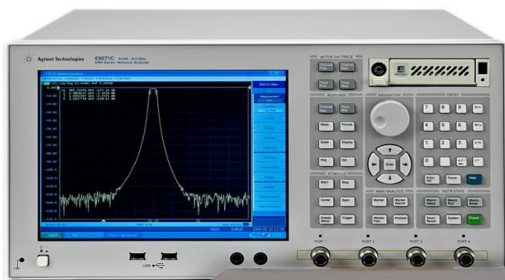
简介/Introduction

1. 项目说明/Project Description
2. 调测设备与设计说明
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3. 调试数据/Debugging Data
4. 匹配电路/Matching circuit
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1. 项目说明/Project Description

- 1.1 该项目为DV6068Y 机顶盒，工作频段为 2.4G-2.5G、5.15-5.85G;
The project is the DV6068Y set-top box, the working frequency band is 2.4G-2.5G, 5.15-5.85G

2. 设计说明/Description of Design



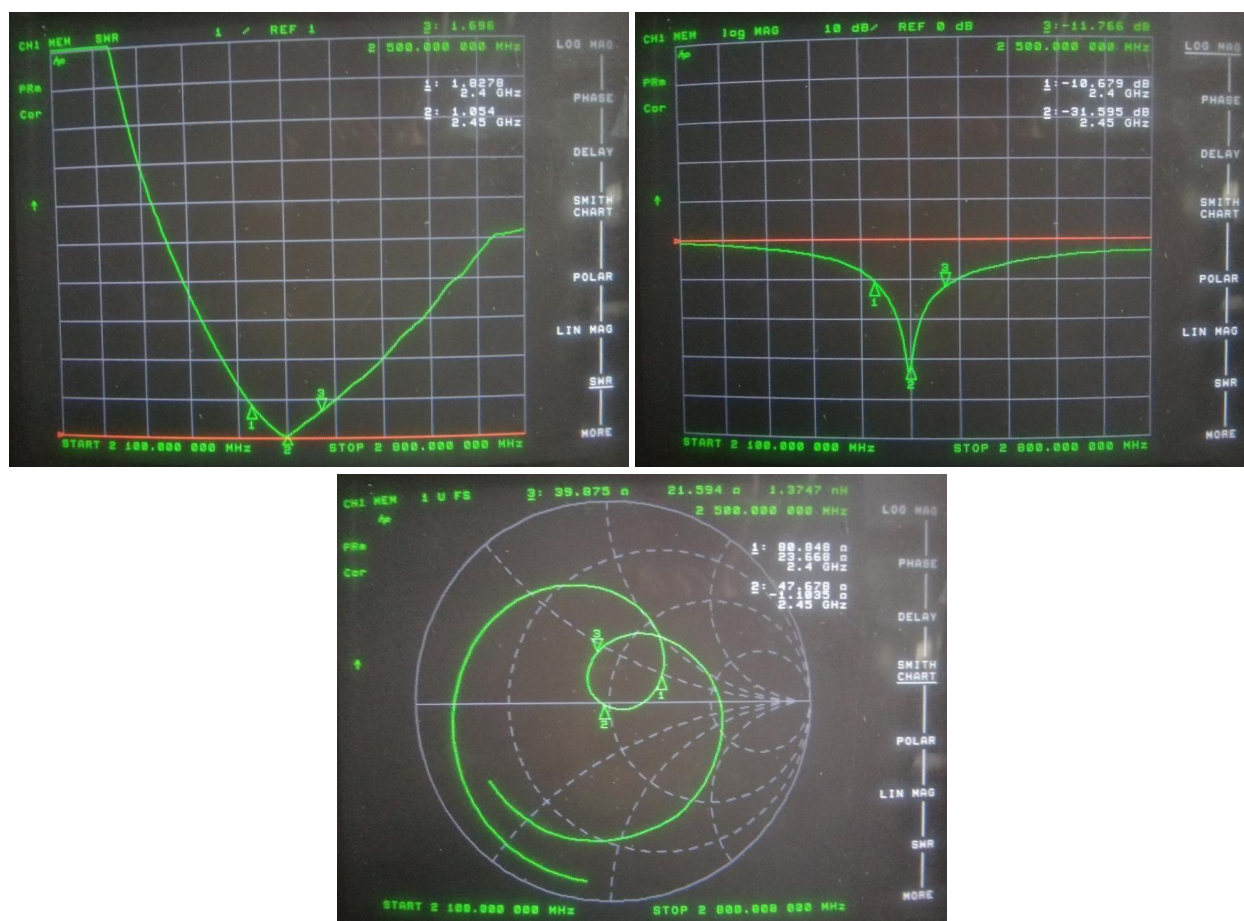
Agilent 网络分析仪 ETS AMS 8500 OTA
Chamber

3. 调试数据/Debugging Data

3.1WIFI-A 2.4G 无源数据/WIFI-A 2.4G passive data:

Electrical Properties	
Frequency	2.4G-2.5G
Impedance	50 ohm Nominal
V.S.W.R	1:1.05 Max
Return Loss	-31.59dBMax
Radiation	Omni-directional
Polarization	Linear,Vertical

VSWR&Return Loss&Smith Chart:

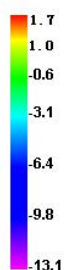
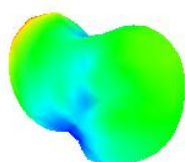


WIFI-A 2.4G 效率、增益、方向图:

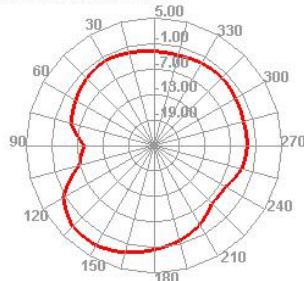
WIFI-A 2.4G efficiency, gain, direction diagram:

Passive Test For 2.4G_wifi		
Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400	57.28	1.71
2440	59.31	2.04
2500	58.42	1.73

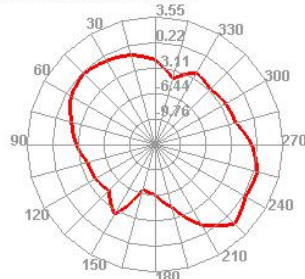
2400.000MHz



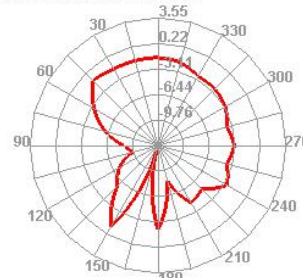
2400.000MHz H



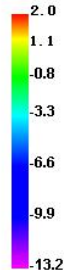
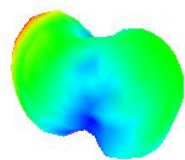
2400.000MHz E1



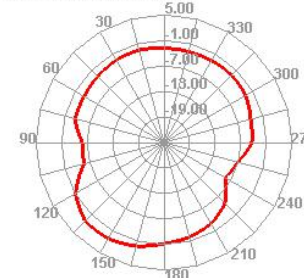
2400.000MHz E2



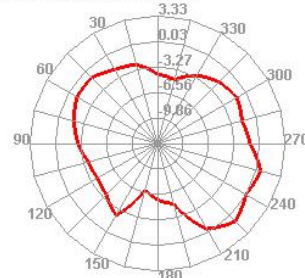
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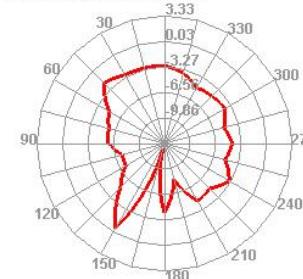
2450.000MHz H



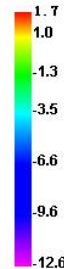
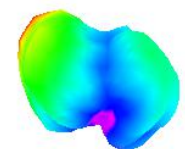
2450.000MHz E1



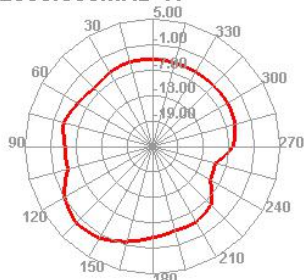
2450.000MHz E2



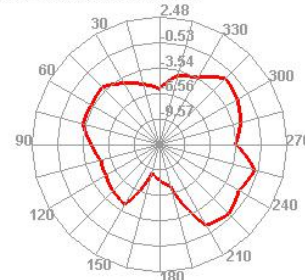
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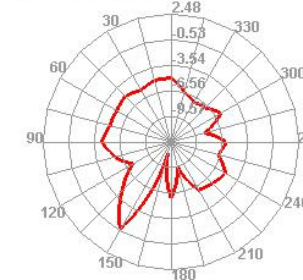
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2500.000MHz E1



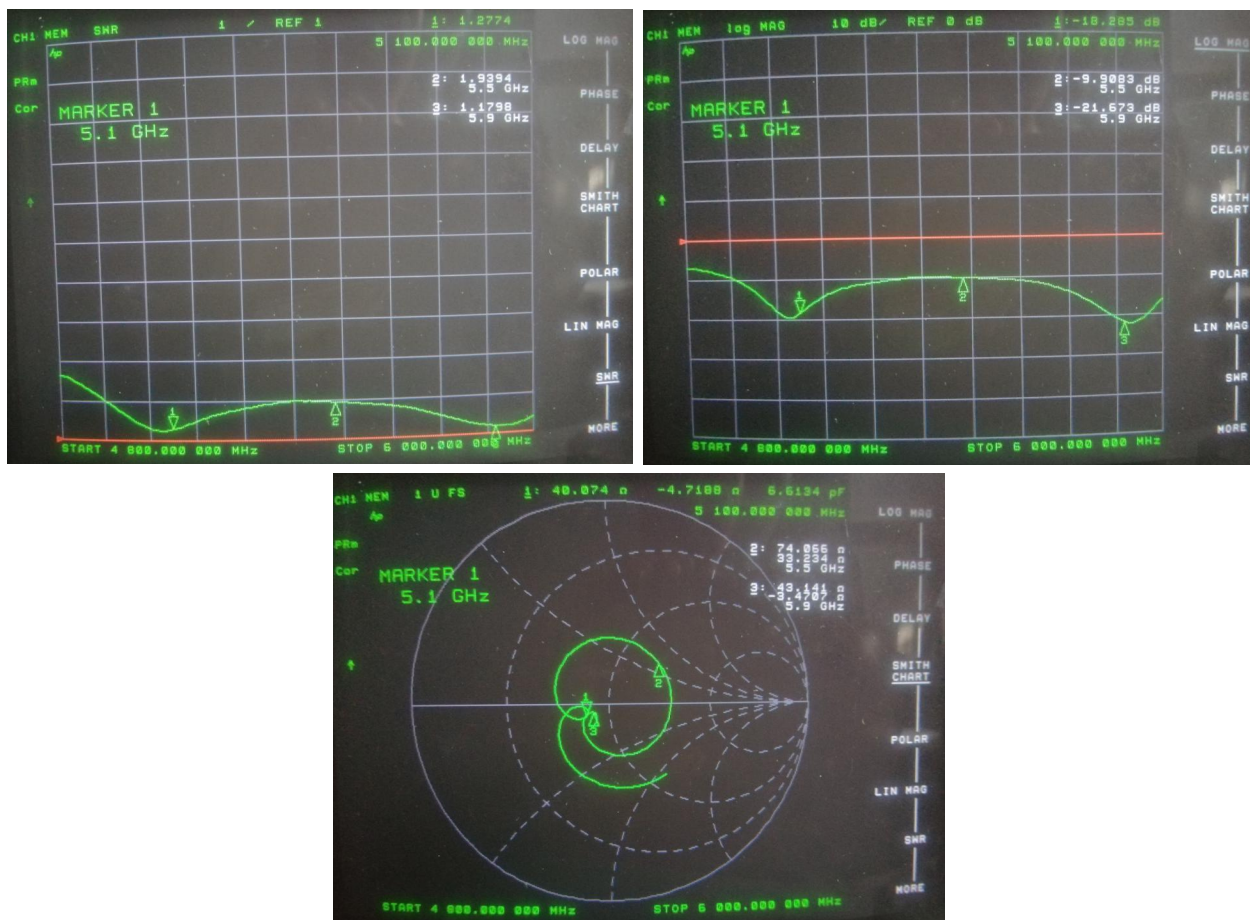
2500.000MHz E2



WIFI-A 5G 无源数据//WIFI-A 5G passive data:

Electrical Properties	
Frequency	5.15G–5.85G
Impedance	50 ohm Nominal
V.S.W.R	1:1.17 Max
Return Loss	-21.67dBMax
Radiation	Omni-directional
Polarization	Linear, Vertical

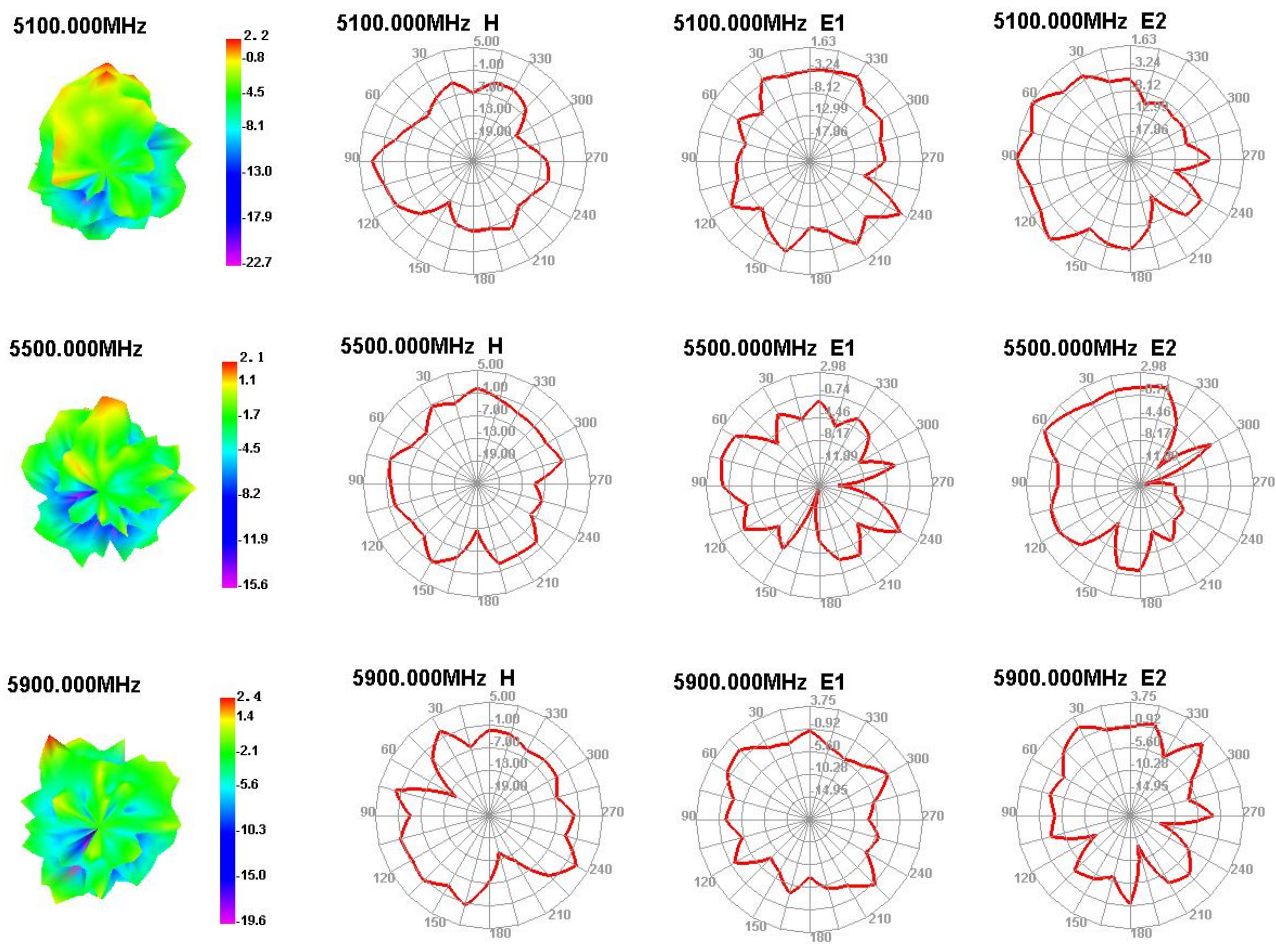
VSWR&Return Loss&Smith Chart:



WIFI-A 5G 效率、增益、方向图:

WIFI-A 5G efficiency, gain, direction diagram:

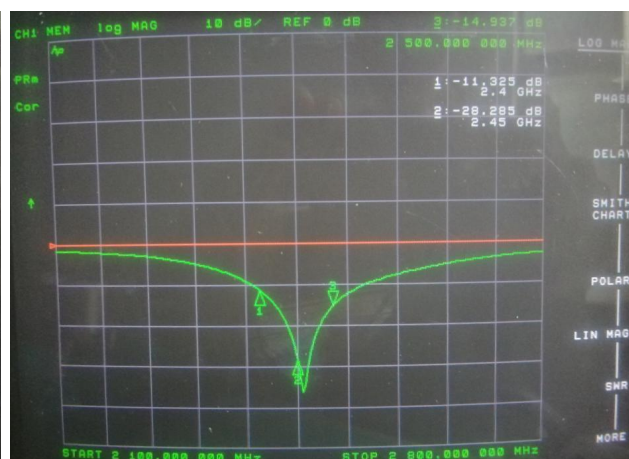
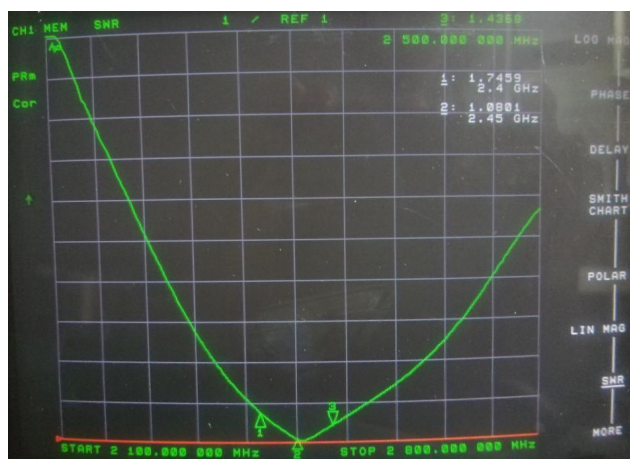
Passive Test For wifi 5G		
Freq	Effi	Gain
(MHz)	(%)	(dBi)
5100	57.81	2.23
5200	56.75	2.54
5300	59.02	3.22
5400	60.95	4.27
5500	57.27	2.14
5600	59.57	3.55
5700	58.75	3.64
5800	59.43	4.16
5900	58.62	2.42
6000	52.36	2.65



3.2 WIFI-B 2.4G 无源数据//WIFI-B 2.4G passive data:

Electrical Properties	
Frequency	2.4G-2.5G
Impedance	50 ohm Nominal
V.S.W.R	1:1.08 Max
Return Loss	-28.28dBMax
Radiation	Omni-directional
Polarization	Linear,Vertical

VSWR&Return Loss&Smith Chart:

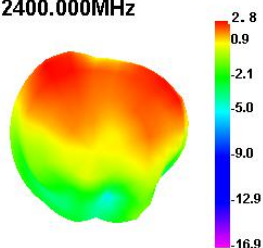


WIFI-B 2.4G 效率、增益、方向图:

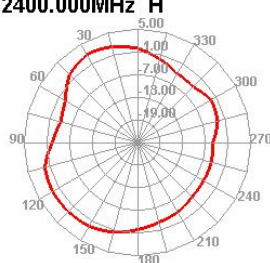
WIFI-B 2.4G efficiency, gain, direction diagram:

Passive Test For wifi 2.4G		
Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400	59.49	1.81
2440	60.28	1.94
2500	59.87	2.03

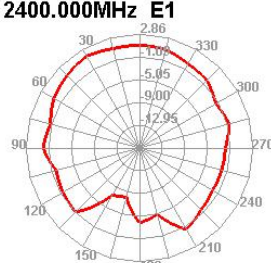
2400.000MHz



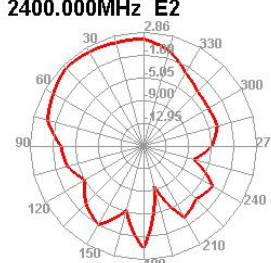
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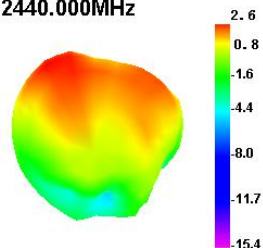
2400.000MHz E1



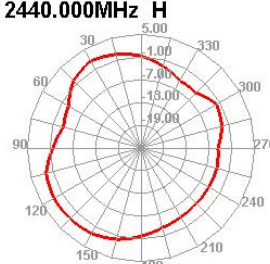
2400.000MHz E2



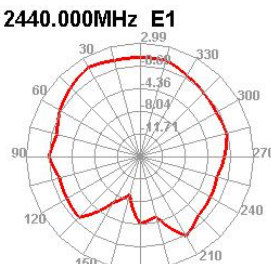
2440.000MHz



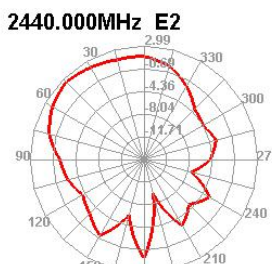
2440.000MHz H



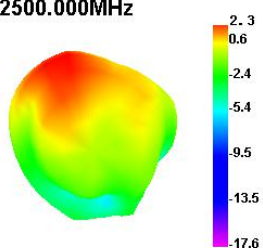
2440.000MHz E1



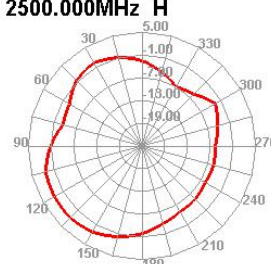
2440.000MHz E2



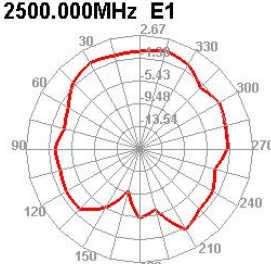
2500.000MHz



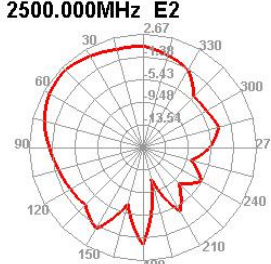
2500.000MHz H



2500.000MHz E1



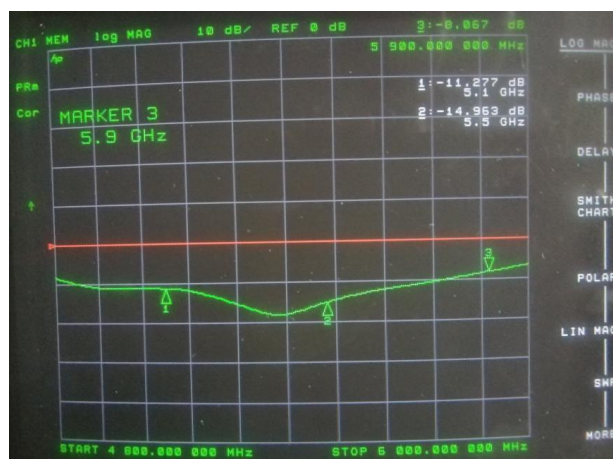
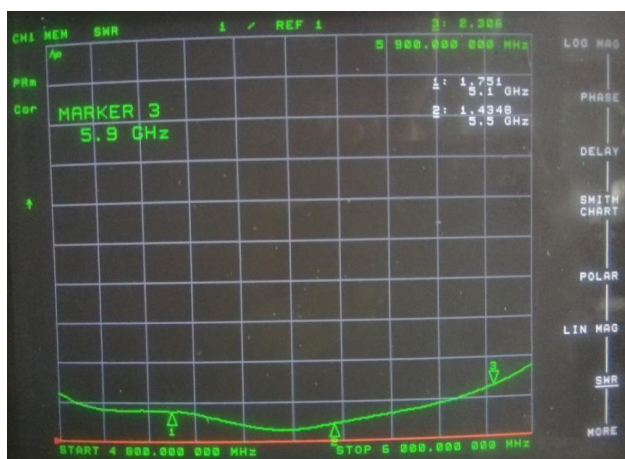
2500.000MHz E2



WIFI-B 5G 无源数据//WIFI-B 5G passive data:

Electrical Properties	
Frequency	5.15G–5.85G
Impedance	50 ohm Nominal
V.S.W.R	1:1.43 Max
Return Loss	-14.96dBMax
Radiation	Omni-directional
Polarization	Linear,Vertical

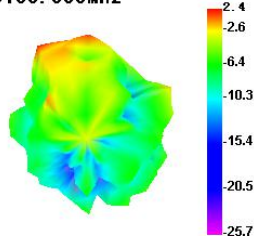
VSWR&Return Loss&Smith Chart:



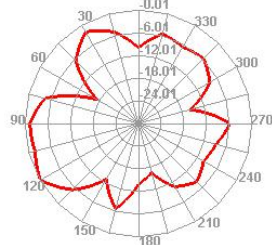
WIFI-B 5G 效率、增益、方向图：
WIFI-B 5G efficiency, gain, direction diagram

Passive Test For wifi 5G		
Freq	Effi	Gain
(MHz)	(%)	(dBi)
5100	58.43	2.42
5200	51.08	2.11
5300	50.37	2.29
5400	51.32	2.86
5500	57.23	2.58
5600	61.80	3.31
5700	56.36	3.18
5800	54.98	2.20
5900	57.66	2.47
6000	50.55	1.94

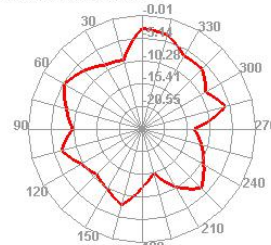
5100.000MHz



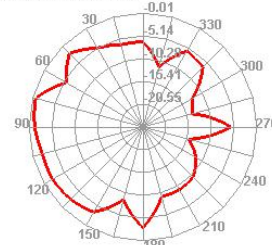
5100.000MHz H



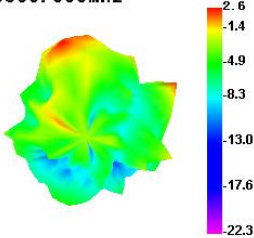
5100.000MHz E1



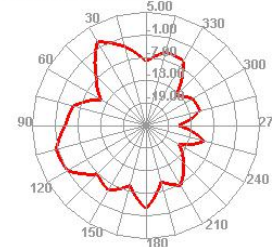
5100.000MHz E2



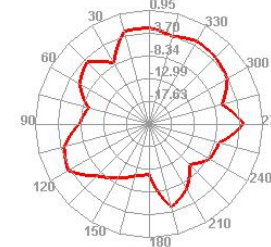
5500.000MHz



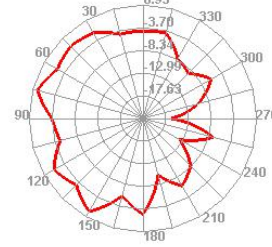
5500.000MHz H



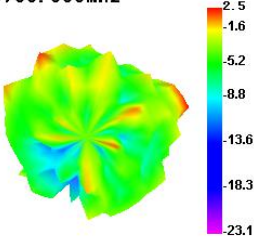
5500.000MHz E1



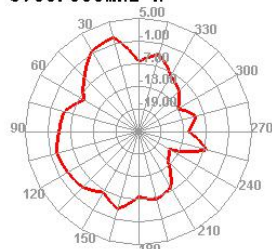
5500.000MHz E2



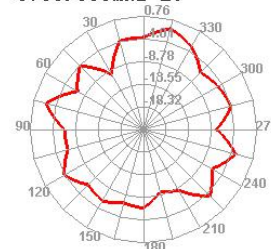
5900.000MHz



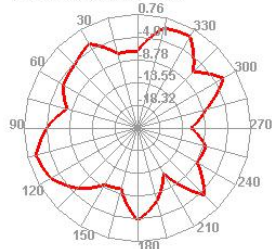
5900.000MHz H



5900.000MHz E1



5900.000MHz E2



3.3 吞吐量测试数据/Throughput test data:

不连蓝牙遥控器、吸波暗室内测得数据：（Mbps）

No Bluetooth remote control, absorbing the data measured in the dark room: (Mbps)

	0°	90°	180°	270°
2.4G	117	112	117	116
5G	325	327	325	326

连接蓝牙遥控器时，对 2.4G 干扰很大，对 5G 无影响，测得 2.4G 数据：

When connecting the Bluetooth remote control, the interference to 2.4G is very large, and the 5G is not affected, and the 2.4G data is measured

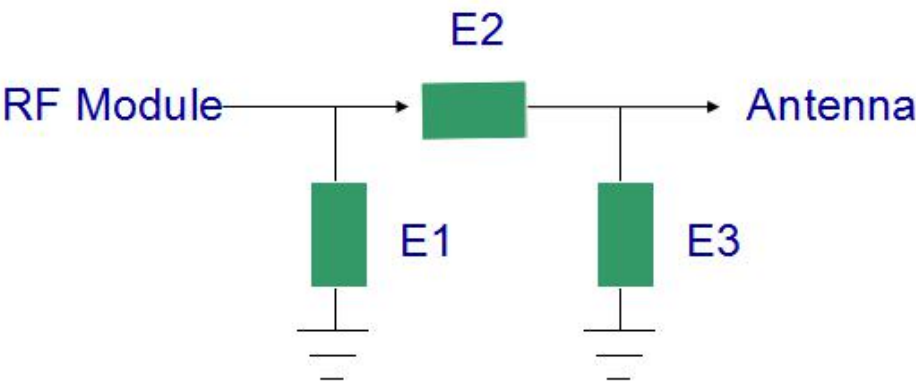
	0°	90°	180°	270°
2.4G	23.7	24.6	23.5	22.8

注：1. 连接蓝牙遥控器后对 2.4G 干扰很大，对 5G 无影响：

Note: 1. After connecting the Bluetooth remote control, the interference of 2.4G is very large, and it has no impact on 5G

2. HDMI 线对天线性能基本无影响/The HDMI cable has no effect on the antenna performance。

4. 匹配电路/Match Circuit



Element	Value
E1 (0402)	原匹配
E2 (0402)	原匹配
E3 (0402)	原匹配

5. 天线位置图/Antenna Location Diagram

WIFI-A

WIFI-B

