



2023

深圳祥博一科技有限公司

Shenzhen Xiangboyi Technology Co. Ltd

天线测试报告

Antenna report



TEST REPORT

01 客户名称/Customer：和天创

02 项目名称/Project：L012H

03 立项编号/Project NO：XBY230405

04 工程师/Engineer：何国荣
电话/Phone：18123875607

PART 1

测试报告版本/Report version

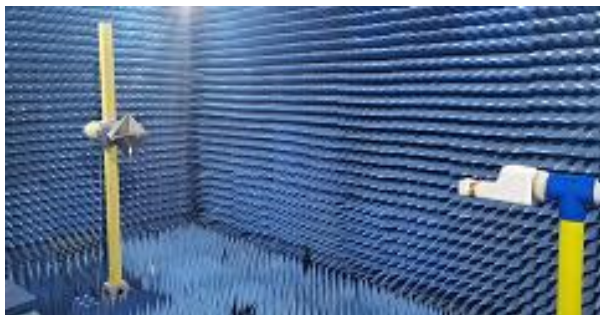
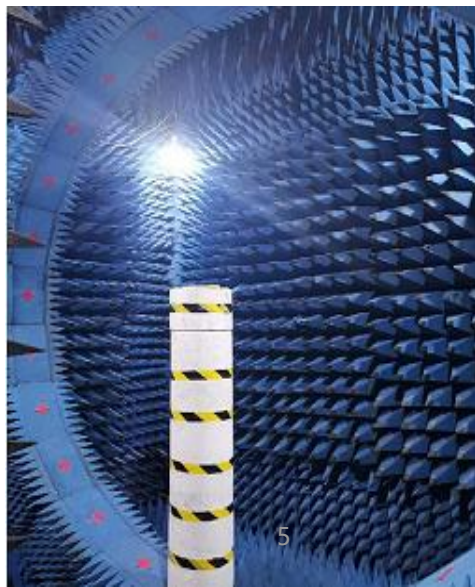
| 日期 Date | 天线版本 Antenna version | 主板版本 PCB version | 变更描述 Description of Change |
|------------|----------------------------|---------------------|-------------------------------|
| 2023-10-16 | | | 天线测试数据 Antenna test data |
| | | | |
| | | | |
| | | | |
| | | | |

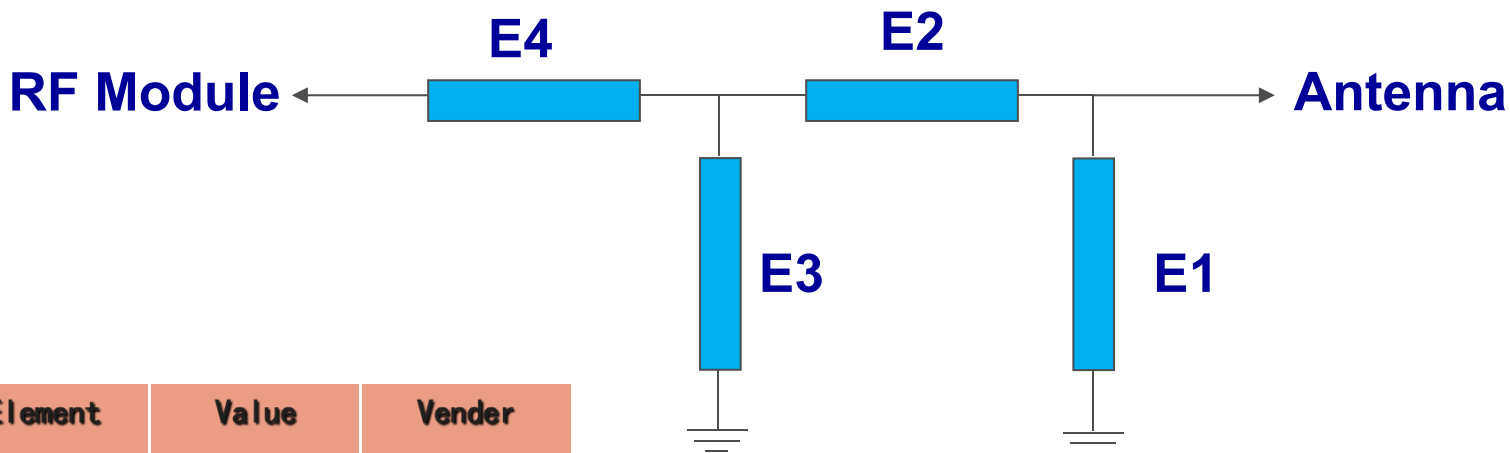
| NO | ITEMS | DETAILS |
|----|-------------------------------|----------------------------|
| 1 | 频率范围 Frequency band | 2400-2500MHz; 5000-6000MHz |
| 2 | 天线类型 Antenna type | Internal Antenna |
| | | |
| | | |

PART 3

Test system and equipment

| | 测试项目/Test items | 设备/equipment |
|---------------------------------------|--|---|
| 1: S参数 S parameter | 1. 回波损耗 Return loss 2. 驻波比 VSWR | 网络分析仪/Network analyzer: A338/A333 |
| 2: 耦合功率测试 Active test | 1. 发射功率 Transmitting power 2. 接收灵敏度 Receiving sensitivity | 综合测试仪/Comprehensive test instrument: Agilent 8960/ CMW500 |
| 3: 辐射模式与增益 Radiation mode and gain | 1. 辐射模式 Radiation mode 2. 天线增益 Gain | 1. 暗室/Shielding room: 7x4x3 m (ETS-3D) 2. 网络分析仪/Network analyzer: HP 8753D |





| Element | Value | Vender |
|-----------|-------|--------|
| E1 (0402) | NA | |
| E2 (0402) | 0 Ohm | |
| E3 (0402) | NA | |
| E4 (0402) | 0 Ohm | |

Original match unchanged.

| WIFI BAND | 802.11a : 54Mbps (5G) | | | | | |
|-----------|-----------------------|-------|--------|--|--|--|
| Channel | CH36 | CH149 | CH161 | | | |
| TRP | 12.35 | 13.74 | 13.96 | | | |
| TIS | | | -71.92 | | | |

| WIFI BAND | 802.11b : 11Mbps (2.4G) | | | 802.11g : 54Mbps (2.4G) | | |
|-----------|-------------------------|-------|--------|-------------------------|-------|--------|
| Channel | CH1 | CH6 | CH11 | CH1 | CH6 | CH11 |
| TRP | 16.71 | 16.46 | 16.21 | 15.08 | 14.81 | 14.12 |
| TIS | | | -83.56 | | | -69.38 |

| WIFI BAND | 802.11n : MCS7 (2.4G) | | | | | |
|-----------|-----------------------|-------|--------|--|--|--|
| Channel | CH1 | CH6 | CH11 | | | |
| TRP | 14.16 | 14.31 | 14.47 | | | |
| TIS | | | -75.64 | | | |

WiFi 2.4G

| Freq (MHz) | Effi (%) | Effi (dB) |
|------------|----------|-----------|
| 2400 | 41.47 | 1.5 |
| 2450 | 43.47 | 2.00 |
| 2500 | 40.25 | 1.31 |

WiFi 5G

| Freq (MHz) | Effi (%) | Gain (dBi) |
|------------|----------|------------|
| 5000 | 44.49 | 1.63 |
| 5100 | 45.83 | 1.57 |
| 5200 | 41.23 | 2.00 |
| 5300 | 44.15 | 1.26 |
| 5400 | 46.93 | 2.00 |
| 5500 | 42.78 | 1.64 |
| 5600 | 44.34 | 1.47 |
| 5700 | 39.73 | 1.34 |
| 5800 | 38.42 | 1.53 |
| 5900 | 38.92 | 0.73 |
| 6000 | 37.54 | 0.46 |

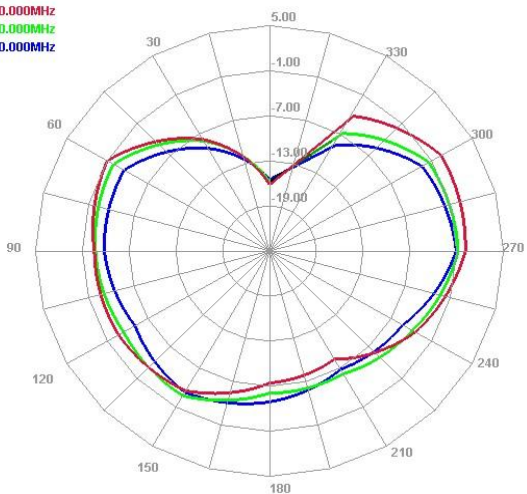
PART 7

无源方向图/Passive directional graph

WiFi 2.4G

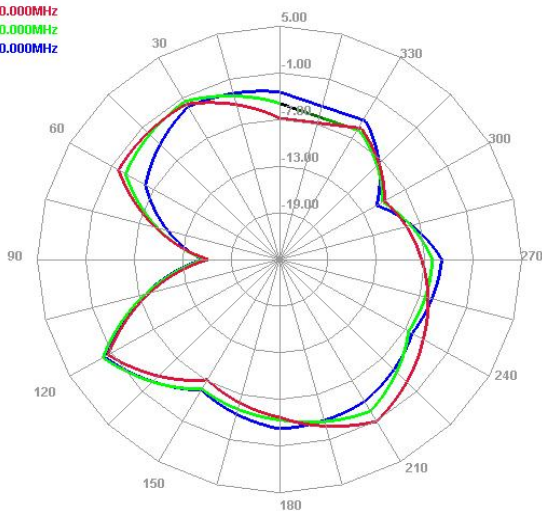
Horizontal

2400.000MHz
2450.000MHz
2500.000MHz



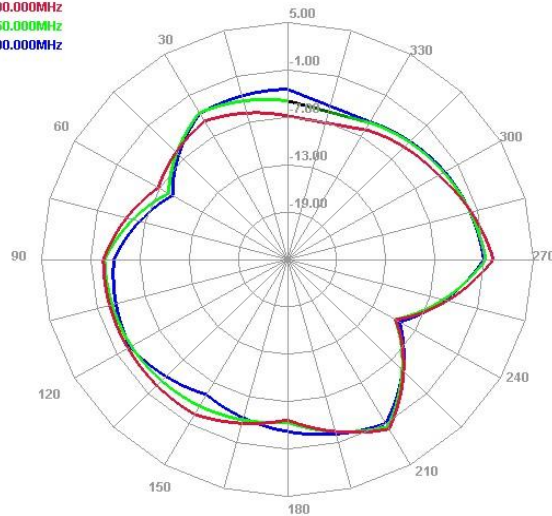
E1 Face

2400.000MHz
2450.000MHz
2500.000MHz



E2 Face

2400.000MHz
2450.000MHz
2500.000MHz

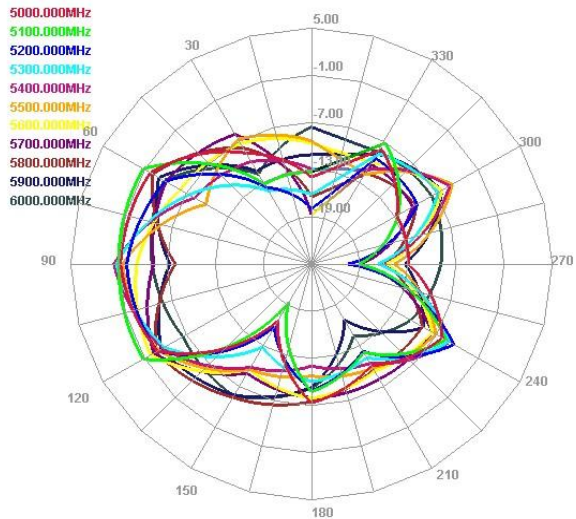


PART 7

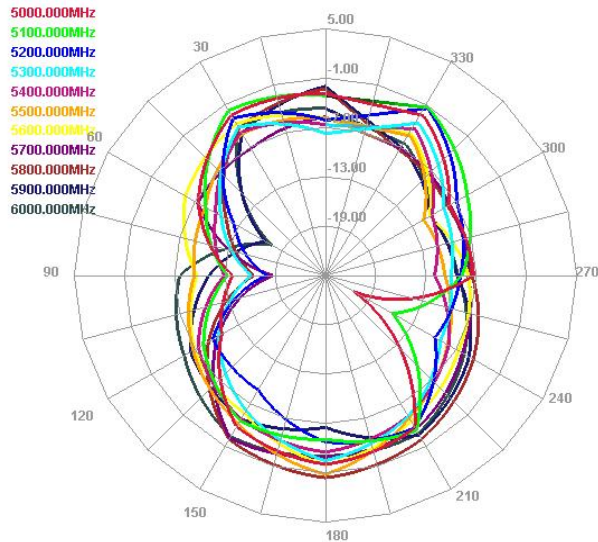
无源方向图/Passive directional graph

WiFi 5G

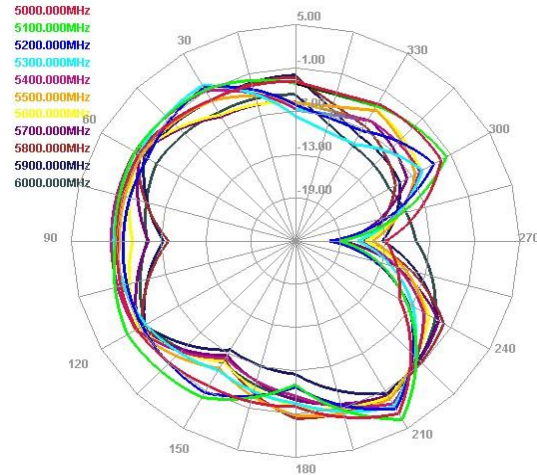
Horizontal



E1 Face

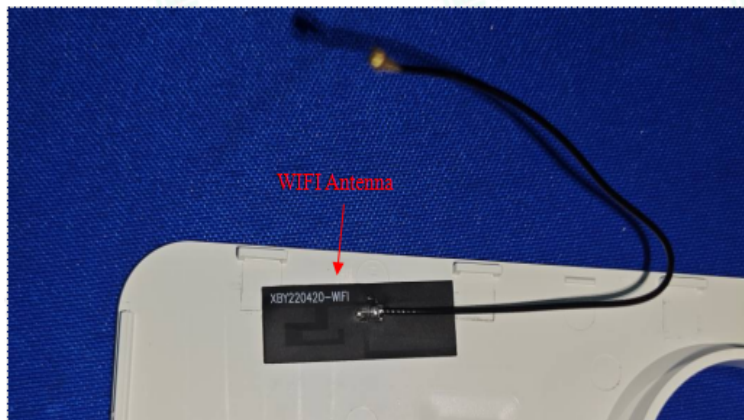
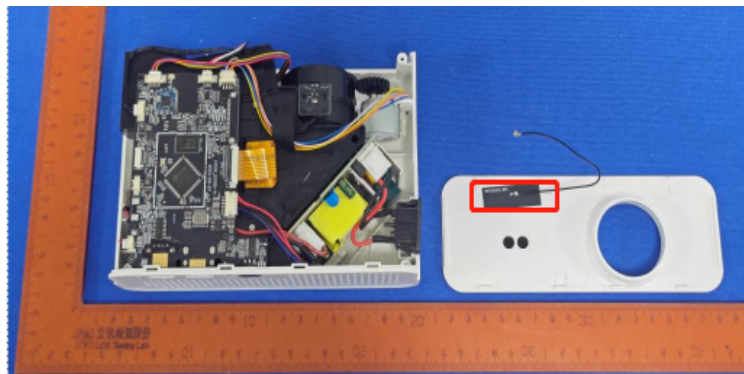


E2 Face



PART 8

Dimension figure





2023 Thanks!

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