

2023

莱闻电子 天线测试报告 Antenna report



D1 客户名称/Customer:品端智能科技

02 项目名称/Project:宠物一体机

DB 立项编号/Project NO:XBY230046

04 工程师/Engineer:孙工



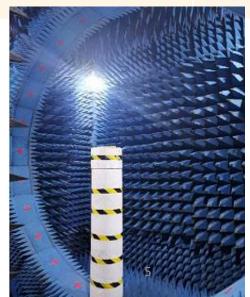
| 日期 Date | 天线版本 Antenna version | 主板版本 PCB version | 变更描述 D escription of Change |
|------------|----------------------------|---------------------|---------------------------------------|
| 2023-2-28 | | | |
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PART 2 项目信息/Project brief

| NO | ITEMS | DETAILS |
|----|---|-------------------|
| 1 | 工作频段 Operating band | WIFI: 2. 4G |
| 2 | 频率范围 Frequency band | WIFI:2400-2500Mhz |
| 3 | 天线类型 Antenna type | WIFI:PIFA |
| 4 | 天线材质及实现形状 Material and implementation shape | FPC+焊线 |

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 | | 综合测试仪/Comprehensive test instrument: Agilent 8960/ CMW500 |
| 3:辐射模式与增益 Radiation mode and gain | 1. 效率 , 增益 2. 辐射模式 | 1. 暗室/Shielding room: 7x4x3 m (ETS-3D) 2. 网络分析仪/Network analyzer: HP 8753D |



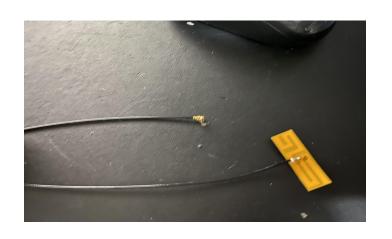








天线实物图/模块





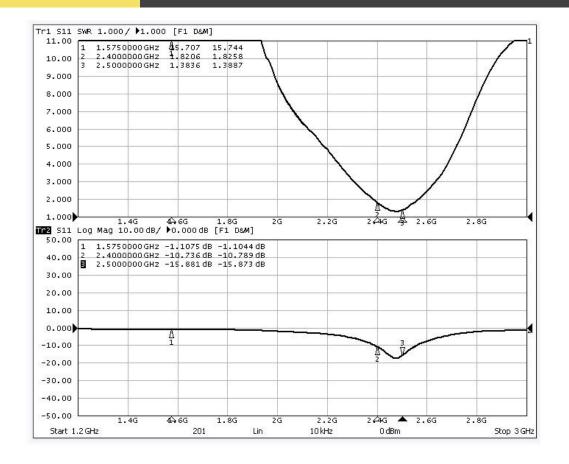
PART 5

测试数据/RFReport

| WIFI | 天线效率, | 增益 |
|-------|-------|-------|
| Freq | Effi | Gain |
| (MHz) | (%) | (dBi) |
| 2400 | 47.67 | 2. 25 |
| 2410 | 36.49 | 1.23 |
| 2420 | 42.69 | 1.91 |
| 2430 | 35.89 | 0.91 |
| 2440 | 42.85 | 1.92 |
| 2450 | 36.83 | 1.31 |
| 2460 | 42.85 | 1.98 |
| 2470 | 39.02 | 1.59 |
| 2480 | 37.18 | 1.38 |
| 2490 | 40.26 | 1.73 |
| 2500 | 41.98 | 1.82 |

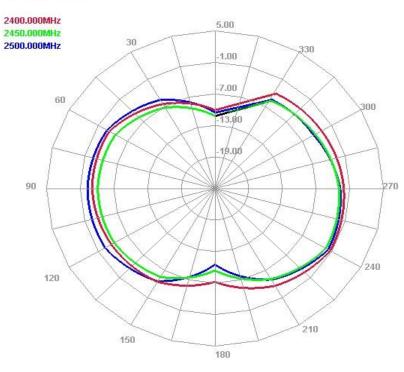
PART 6

测试数据/RFReport



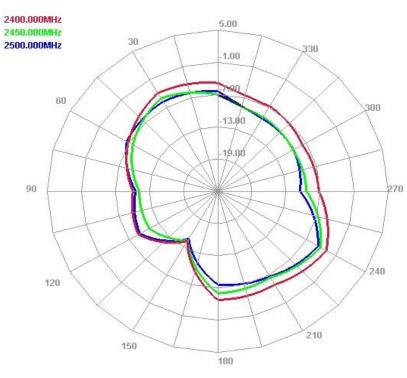
测试数据/RFReport

Horizontal

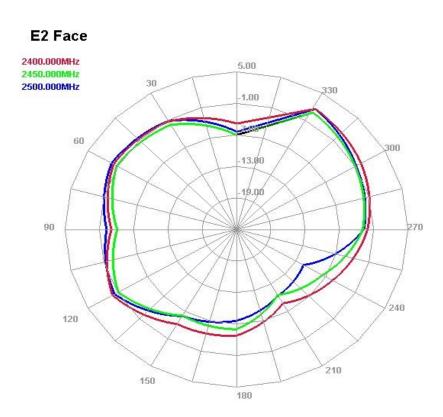


测试数据/RFReport

E1 Face

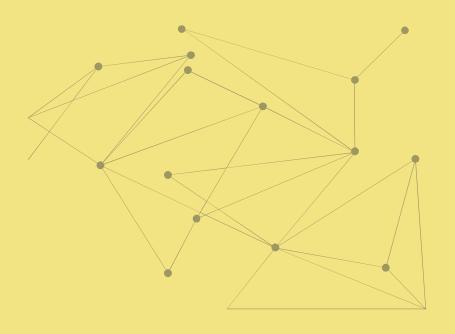


测试数据/RFReport



测试结果如下:

- 1,模块同天线匹配效果良好。
- 2,无源测试数据真实有效,并且信号接收数据良好(模拟封闭塑胶盒子环境内)



Thanks!