

# 深圳祥博一科技有限公司

Shenzhen Xiangboyi Technology Co. Ltd

## Antenna Specification Sheet

|          |              |
|----------|--------------|
| 客户名称     | 和天创          |
| Part No. | L018-BT      |
| Model    | XBY240035-BT |

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日期：2024 年 10 月 09 日



| 客户确认 |    |    |    |
|------|----|----|----|
| 工程   | 项目 | 品质 | 批准 |
|      |    |    |    |

| 供方确认 |    |    |
|------|----|----|
| 结构   | 射频 | 批准 |
|      |    |    |

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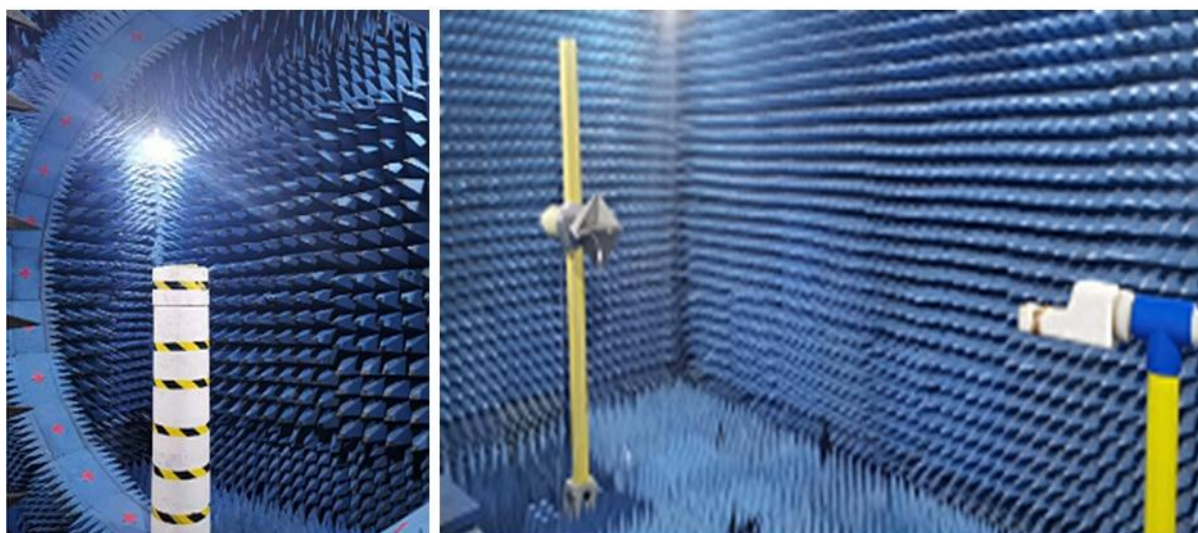
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# 一. 测试系统及设备 Test System and Equipment

|                 | 测试项目              | 设备                                            |
|-----------------|-------------------|-----------------------------------------------|
| <b>1 : S 参数</b> | 1. 回波损耗<br>2. 驻波比 | 网络分析仪: A338/A333<br>HP8753D                   |
| <b>2 : 有源测试</b> | 1. TRP<br>2. TIS  | 综合测试仪: Agilent 8960/ CMW500                   |
| <b>3 : 无源测试</b> |                   | 1. 暗室: 5x3x3 m (ETS-3D)<br>2. 网络分析仪: HP 8753D |



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## 二. 产品细节描述 Product Description

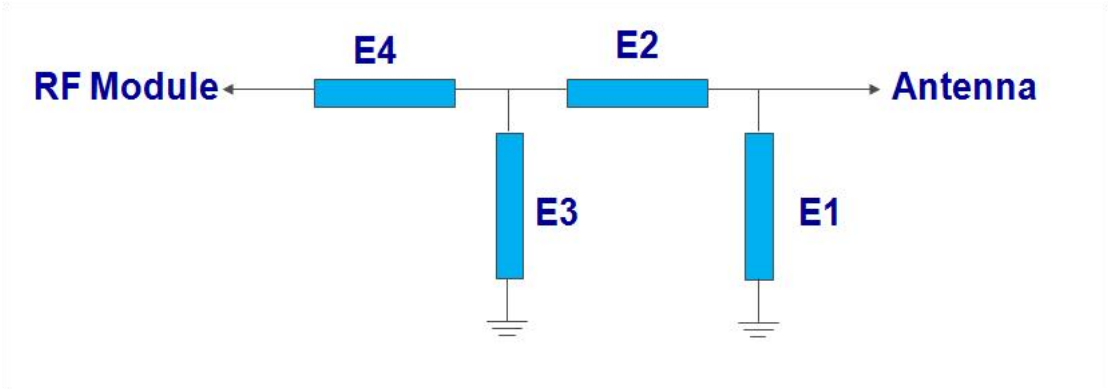
| 技术要求<br>Technical requirements | 技术指标<br>Technical index                              | 备注                       |
|--------------------------------|------------------------------------------------------|--------------------------|
| 工作频段<br>Band                   | WIFI: B/G/N/A 模                                      |                          |
| 频率范围<br>Range Of Frequency     | WIFI: 2400-2500Mhz<br>5000-5800Mhz                   |                          |
| 驻波比<br>VSWR                    | 2400-2500Mhz<3.0<br>5000-5800Mhz<3.0                 | 中心频率<br>Center Frequency |
| 输出阻抗<br>Impedance              | 50 $\Omega$                                          |                          |
| 极化方式<br>Polarization           | 线极化<br>Linear polarization                           |                          |
| 工作温度<br>operating temperature  | -20℃ / +55℃                                          |                          |
| 存储温度<br>storage temperature    | -25℃ / +65℃                                          |                          |
| 盐雾<br>Salt Fog                 | 24 小时 (24 小时干湿交替)<br>24h (24h alternating wet & dry) |                          |
| 无铅认证<br>RoHS Compliant         | 是<br>yes                                             |                          |

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# 四. 匹配电路     Matching Circuits



匹配电路

| Element  | Value | Vender |
|----------|-------|--------|
| E1(0201) | NA    |        |
| E2(0201) | 0Ω    |        |
| E3(0201) | NA    |        |
| E4(0201) | 0Ω    |        |

天线匹配没有做改动。

## 五. 有源测试数据 Active Test Data

| WIFI BAND | 802.11a : 54Mbps (5G) |       |        |  |  |  |
|-----------|-----------------------|-------|--------|--|--|--|
| Channel   | CH36                  | CH149 | CH161  |  |  |  |
| TRP       | 11.41                 | 12.13 | 12.37  |  |  |  |
| TIS       |                       |       | -70.15 |  |  |  |

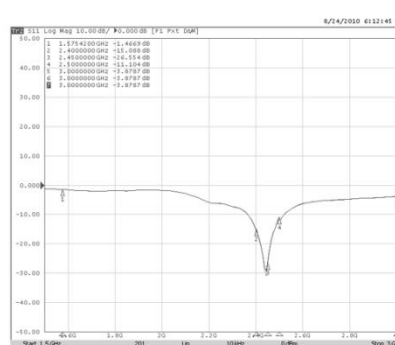
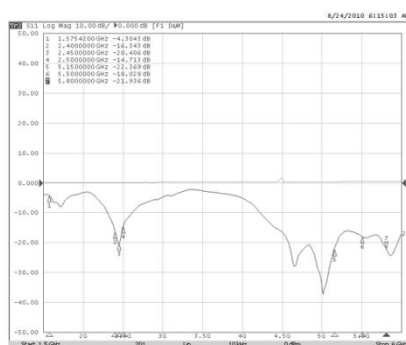
| WIFI BAND | 802.11b : 11Mbps (2.4G) |       |        | 802.11g : 54Mbps (2.4G) |       |        |
|-----------|-------------------------|-------|--------|-------------------------|-------|--------|
| Channel   | CH1                     | CH6   | CH11   | CH1                     | CH6   | CH11   |
| TRP       | 14.35                   | 14.56 | 14.83  | 10.79                   | 10.85 | 11.12  |
| TIS       |                         |       | -79.46 |                         |       | -67.61 |

| WIFI BAND | 802.11n : MCS7 (2.4G) |       |        |  |  |  |
|-----------|-----------------------|-------|--------|--|--|--|
| Channel   | CH1                   | CH6   | CH11   |  |  |  |
| TRP       | 10.54                 | 10.98 | 10.64  |  |  |  |
| TIS       |                       |       | -69.40 |  |  |  |

| WiFi 2.4G  |          |            |
|------------|----------|------------|
| Freq (MHz) | Effi (%) | Gain (dBi) |
| 2400       | 48.05    | 2.87       |
| 2410       | 49.78    | 2.87       |
| 2420       | 52.69    | 2.98       |
| 2430       | 53.06    | 2.77       |
| 2440       | 52.56    | 2.49       |
| 2450       | 52.56    | 2.3        |
| 2460       | 50.99    | 1.97       |
| 2470       | 51.04    | 1.69       |
| 2480       | 52.95    | 1.95       |
| 2490       | 52.51    | 2.07       |
| 2500       | 51.95    | 2.28       |

| WiFi 5.8G  |          |            |
|------------|----------|------------|
| Freq (MHz) | Effi (%) | Gain (dBi) |
| 5000       | 50.46    | 1.38       |
| 5100       | 53.56    | 1.49       |
| 5200       | 54.17    | 2.71       |
| 5300       | 49.61    | 2.62       |
| 5400       | 50.18    | 3.56       |
| 5500       | 52.57    | 3.76       |
| 5600       | 51.25    | 3.89       |
| 5700       | 55.26    | 3.26       |
| 5800       | 52.12    | 3.47       |
| 5900       | 47.43    | 2.04       |
| 6000       | 47.36    | 2.69       |

| BT         |          |            |
|------------|----------|------------|
| Freq (MHz) | Effi (%) | Gain (dBi) |
| 2400       | 44.93    | 2.11       |
| 2410       | 45.03    | 2.25       |
| 2420       | 46.56    | 2.43       |
| 2430       | 47.58    | 2.45       |
| 2440       | 48.24    | 2.56       |
| 2450       | 48.75    | 2.56       |
| 2460       | 48.55    | 2.59       |
| 2470       | 49.1     | 2.6        |
| 2480       | 50.52    | 2.7        |
| 2490       | 50.42    | 2.6        |
| 2500       | 49.69    | 2.41       |



### 测试结论及注意事项：

**指标满足 WIFI 频正常天线指标**

**注意：本天线只适用于调试样机，任何主板版本有变更或者射频物料更改有变动，都必须经过我司测试验证后方可使用。**

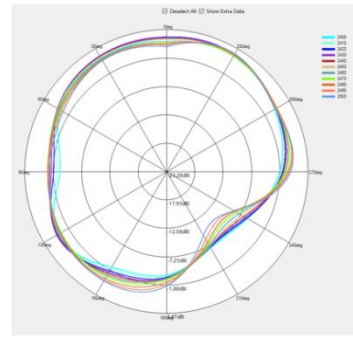
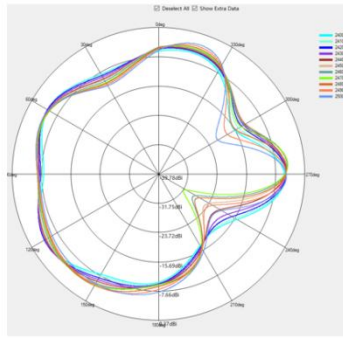
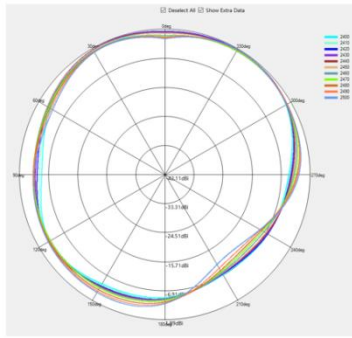
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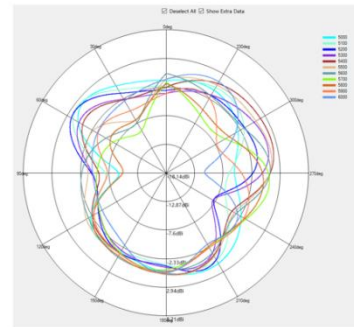
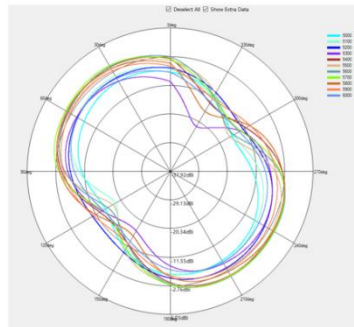
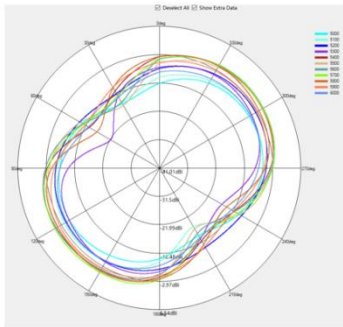
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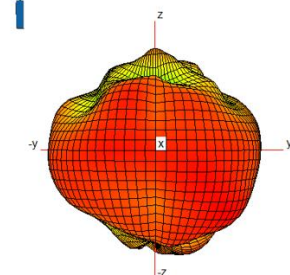
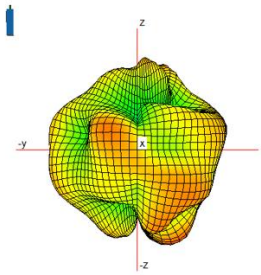
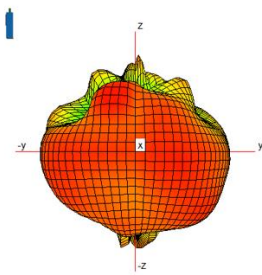
### WiFi 2.4G



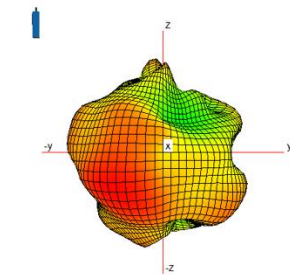
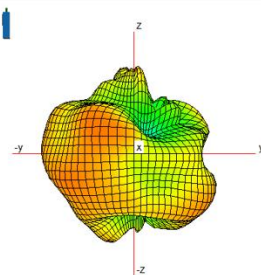
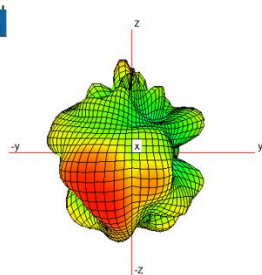
### WiFi 5.8G



### WiFi 2.4G



### WiFi 5.8G



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