

# 深圳市亿圣邦科技有限公司

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The Holy bond Electronics Co., Ltd.

## Antenna Test Report

Customer: 科金明

Project: K300

Product: WIFI Antenna—FPC

Report date: 2024.04.10

Prepared by : 范新竹

Checked by : Eason Huang

Approved by :



# ***Purpose***

This report is to measure the performance of SLK for Master Antenna on 科金明. All measure data are showed below.

## ***Content***

### 1. Product Overview

### 2. Test Result

#### 2.1 VSWR/S11

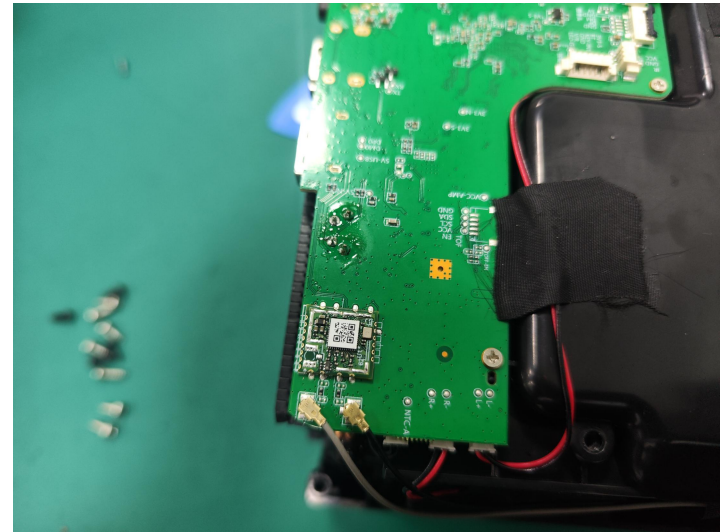
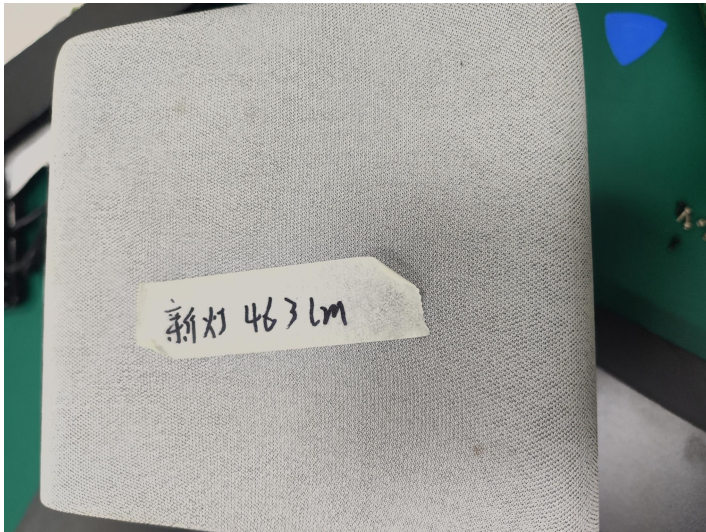
#### 2.2 Antenna Parameters

#### 2.3 WIFI Antenna TRP/TIS

#### 2.4 WIFI Antenna Gain/Efficiency/3D DATA

### 3. Conclusions

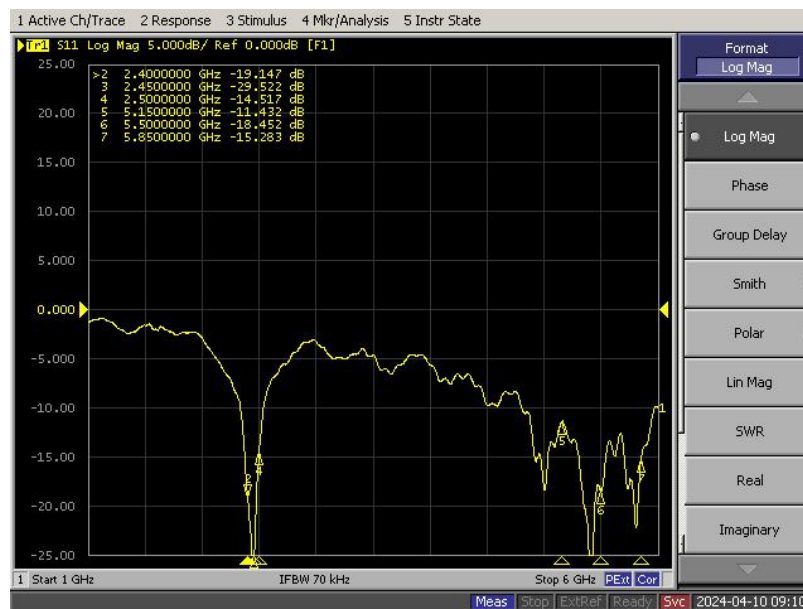
# 1. Product Overview



## 2. Test Result

### 2.1 VSWR/S11

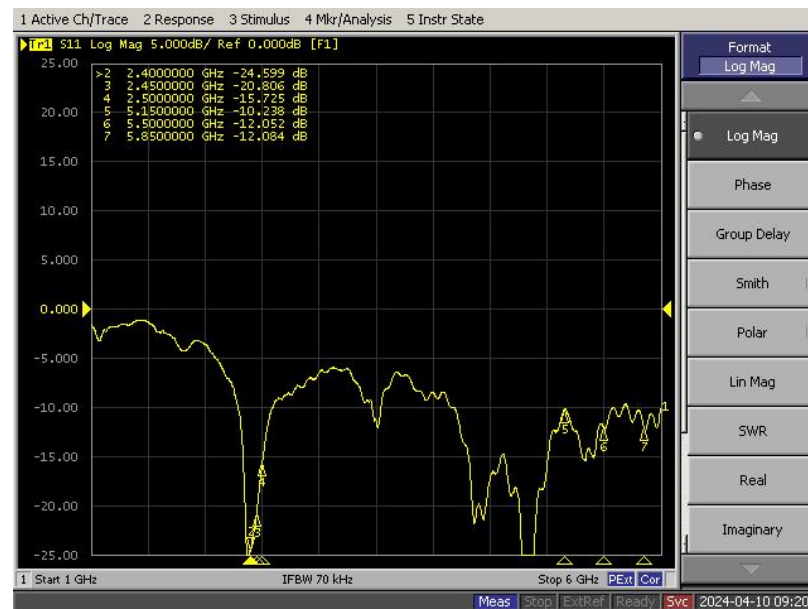
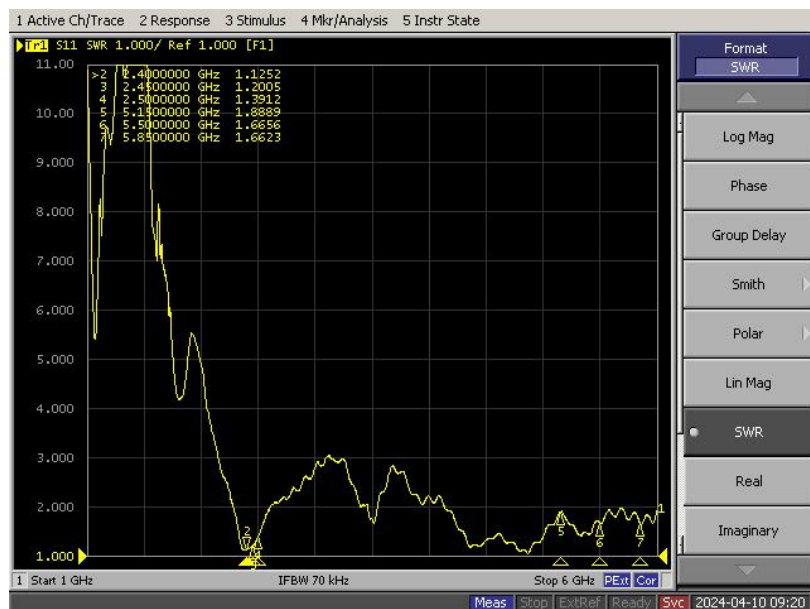
WIFI 1



## 2. Test Result

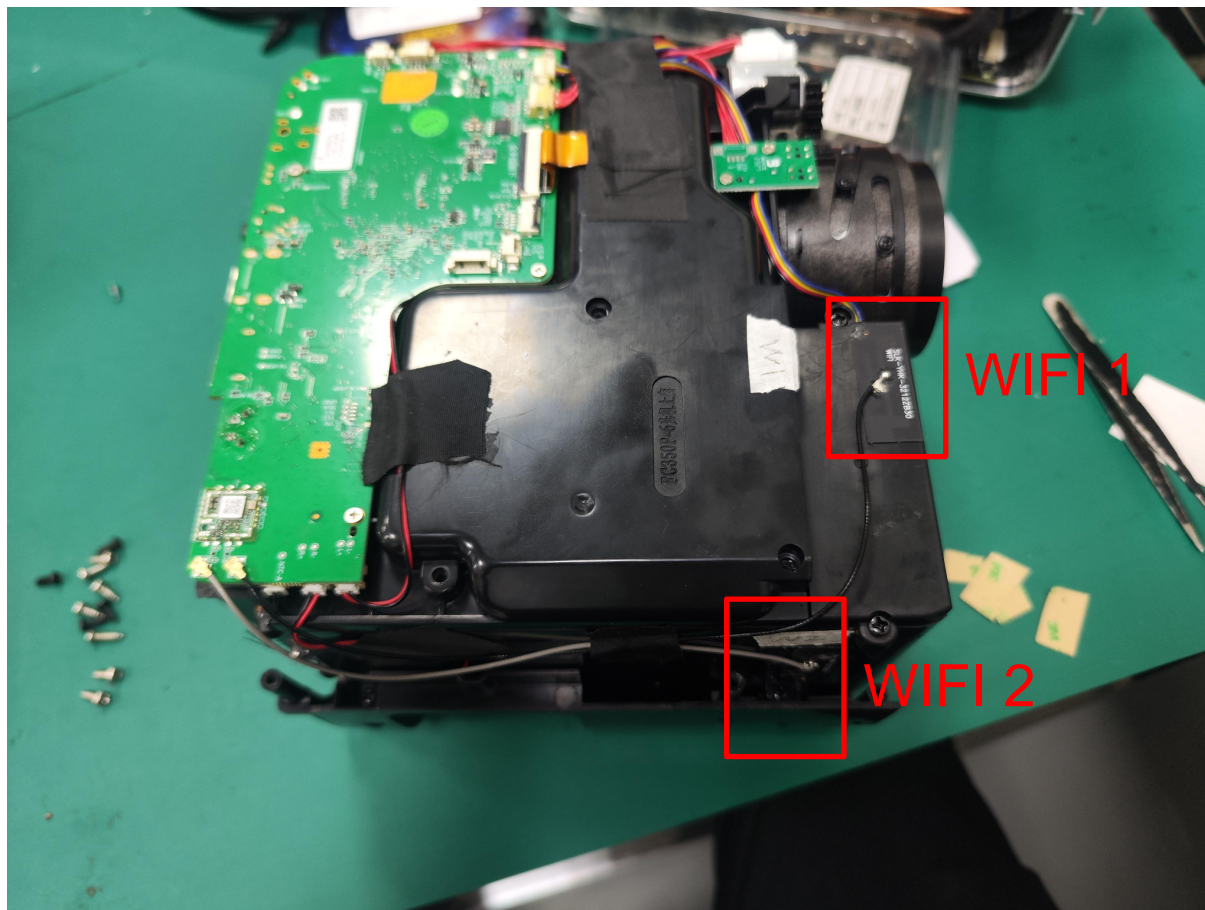
### 2.1 VSWR/S11

WIFI 2



## 2. Test Result

### 2.2 Antenna Parameters



## 2. Test Result

### 2.3 WIFI Antenna TRP/TIS

| WIFI    | CH  | 功率(54M) | 灵敏度(54M) | WIFI    | CH | 功率(54M)  | 灵敏度(54M)  |
|---------|-----|---------|----------|---------|----|----------|-----------|
| 802.11a | 36  | 12.71   | -73.6    | 802.11g | 1  | 14.17    | -72.95    |
|         | 149 | 11.49   | -72.9    |         | 6  | 14.2     | -72.78    |
|         | 165 | 11.33   | -73.18   |         | 11 | 15.14    | -73.43    |
| WIFI    | CH  | 功率(11M) | 灵敏度(11M) | WIFI    | CH | 功率(MCS7) | 灵敏度(MCS7) |
| 802.11b | 1   | 15.12   | -80.97   | 802.11n | 1  | 14.06    | -69.03    |
|         | 6   | 14.85   | -82.57   |         | 6  | 14.21    | -68.08    |
|         | 11  | 16.04   | -81.43   |         | 11 | 14.28    | -68.11    |

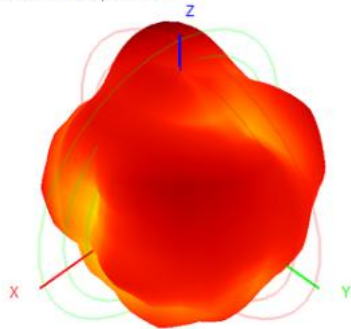
## 2. Test Result

### 2.4 WIFI Antenna Gain/Efficiency/3D DATA

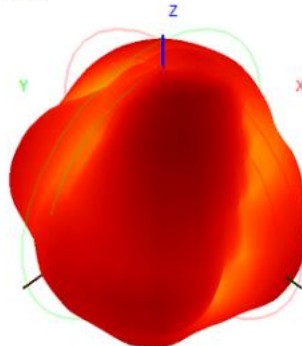
#### WIFI 1

| Frequency (MHz)  | 2400.0 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 | 5150.0 | 5350.0 | 5500.0 | 5650.0 | 5850.0 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Efficiency (dBi) | -3.02  | -2.85  | -2.84  | -2.77  | -2.85  | -2.97  | -3.04  | -2.94  | -2.82  | -3.09  | -3.13  | -3.53  | -3.22  | -3.32  | -3.61  | -3.51  |
| Gain (dBi)       | 2.18   | 2.37   | 2.54   | 2.62   | 2.45   | 2.20   | 2.21   | 2.46   | 2.32   | 2.07   | 1.94   | 2.41   | 2.49   | 2.06   | 2.88   | 2.26   |
| Efficiency (%)   | 49.88  | 51.92  | 52.00  | 52.81  | 51.91  | 50.43  | 49.71  | 50.79  | 52.18  | 49.09  | 48.69  | 44.37  | 47.62  | 46.56  | 43.58  | 44.52  |

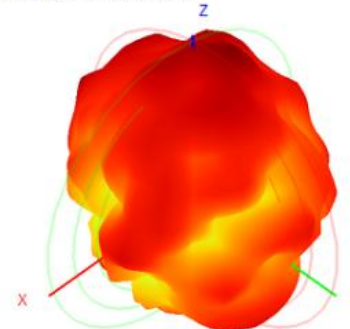
2450.0MHz H+V, Eff: 50.4%



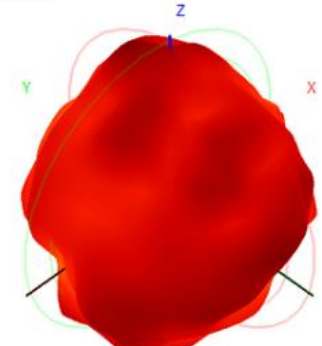
Back View



5850.0MHz H+V, Eff: 44.5%



Back View



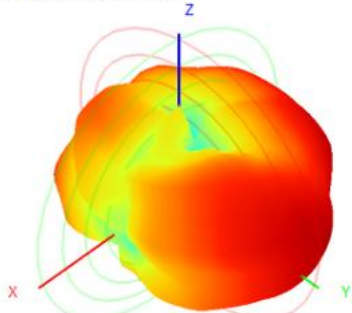
## 2. Test Result

### 2.4 WIFI Antenna Gain/Efficiency/3D DATA

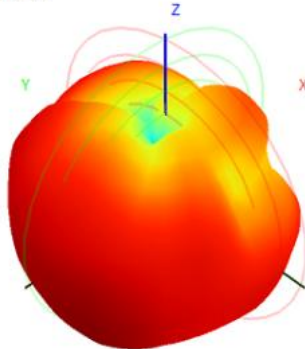
#### WIFI 2

| Frequency (MHz)  | 2400.0 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 | 5150.0 | 5350.0 | 5500.0 | 5650.0 | 5850.0 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Efficiency (dBi) | -3.61  | -3.39  | -3.41  | -3.24  | -3.22  | -3.26  | -3.40  | -3.24  | -3.10  | -3.23  | -3.24  | -3.77  | -3.48  | -3.60  | -3.71  | -3.70  |
| Gain (dBi)       | 2.36   | 2.45   | 2.30   | 2.56   | 2.56   | 2.70   | 2.60   | 2.59   | 2.65   | 2.52   | 2.47   | 2.56   | 2.59   | 2.41   | 1.67   | 2.40   |
| Efficiency (%)   | 43.53  | 45.81  | 45.56  | 47.37  | 47.65  | 47.20  | 45.74  | 47.47  | 48.99  | 47.52  | 47.43  | 41.94  | 44.89  | 43.70  | 42.51  | 42.69  |

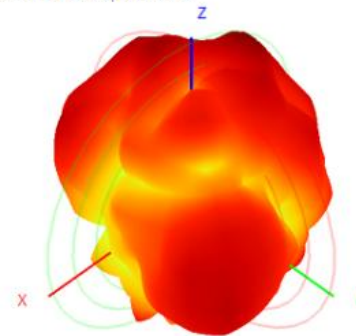
2450.0MHz H+V, Eff: 47.2%



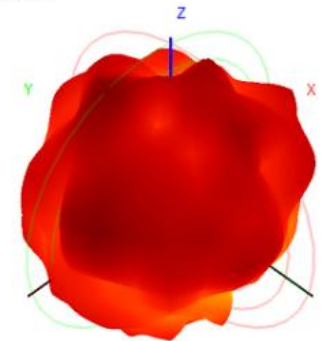
Back View



5850.0MHz H+V, Eff: 42.7%



Back View



### 3. Size

