

SHENZHEN KINTER NEW INDUSTRIAL TECHNOLOGY CO., LTD.

Room 508, Building C, Liantangkeng Industrial Zone, Fenghuanggang Community, Xixiang Subdistrict,  
Bao'an District, Shenzhen

# 承認書

SPECIFICATION FOR APPROVAL

客 戶： 华芯智影

Customer

项目名： K802-230D

Project

品 名： WIFI 天线 (E. 18. 0110)

Description

料 號： K802-WIFI-F8L2B-050-D

Part Number

日 期： 2025 年 08 月 06 日

Date Year Month Day

承認人簽章

Signature

Contact: 18688745790  
TEL: +86-755-23025852

## 1. Electrical Specification :

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=±1      X.X=±0.1      X.XX=±0.01

ANGLES=±      HOLE DIA=±

SCALE :

UNIT : mm

DRAWN BY : 张行星

CHECKED BY : 王浩

DESIGNED BY : 李元豪

APPROVED BY : 易珂湘

TITLE : K802-WIFI-F8L2B-050-D Specification

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Those specifications were specially defined for 华芯智影 K802-230D WIFI model, and all characteristics were measured under the model's handset testing jig .

## 1-1. Frequency Band:

| Frequency Band | MHz                 |
|----------------|---------------------|
| Wi-Fi          | 2400-2500/5150-5850 |

## 1-2. Impedance

50 ohm nominal

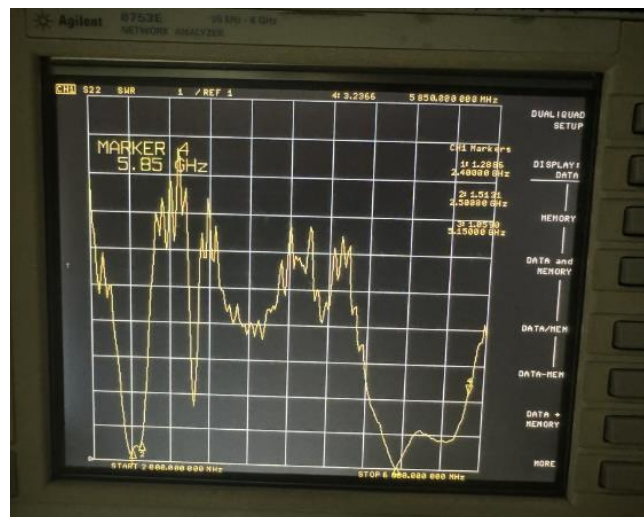
## 2. VSWR

### 2-1 Measuring Method

1. A 50 $\Omega$  coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR;
- 2.Keeping this jig away from metal at least 20cm.

### 2-2 Measurement frequency points and VSWR value

| Frequency (MHz) | 2400 | 2500 | 5150 | 5850 |
|-----------------|------|------|------|------|
| VSWR            | 1.28 | 1.51 | 1.85 | 3.23 |



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3. Efficiency and Gain

- 量测仪器：微波暗室，Agilent 网络分析仪，Agilent 频谱分析仪，8960 综合测试仪，标准天线。
- 微波暗室说明：  
这是本公司设置在深圳的微波暗室，本微波暗室是属于一套远场量测系统,暗室的大小为 5.0 米 x3.0 米 x3.0 米 ， 静区尺寸(Quiet zone)大小为 15 厘米 x15 厘米 x15 厘米。

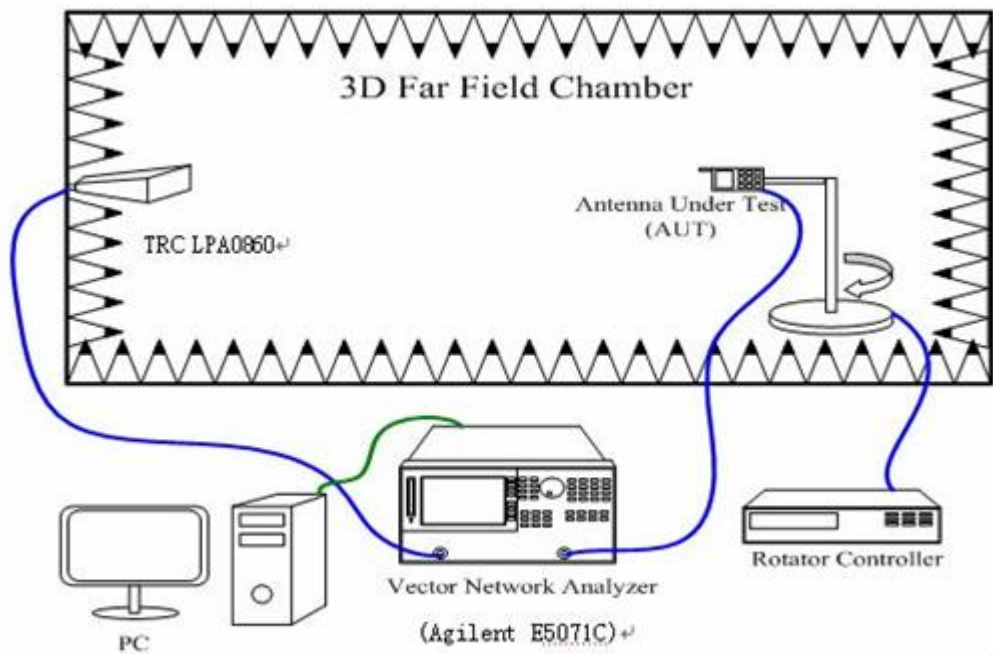


图. 1. 微波暗室内仪器设置 r.↵

图. 1 为微波暗室内的仪器设置及网络分析仪的联接图，发射天线(0.8-6.0GHZ for Gain Calibration)到待测天线(AUT)的距离为 3.0 米，待测天线放置在旋转平台上,藉由控制转台旋转的角度可对待测天线做概略性及较为准确的量测。

将待测天线放置于旋转台上,并测得其各个平面(ZY 平面及 ZX 平面)的 360 度场强数据。再将待测天线换置成标准偶极天线将其 360 度的场强数据测出，以作换算增益标准值，经由式 1 的换算即可获得待测天线的增益值及方向图。

3-1 Measuring Method

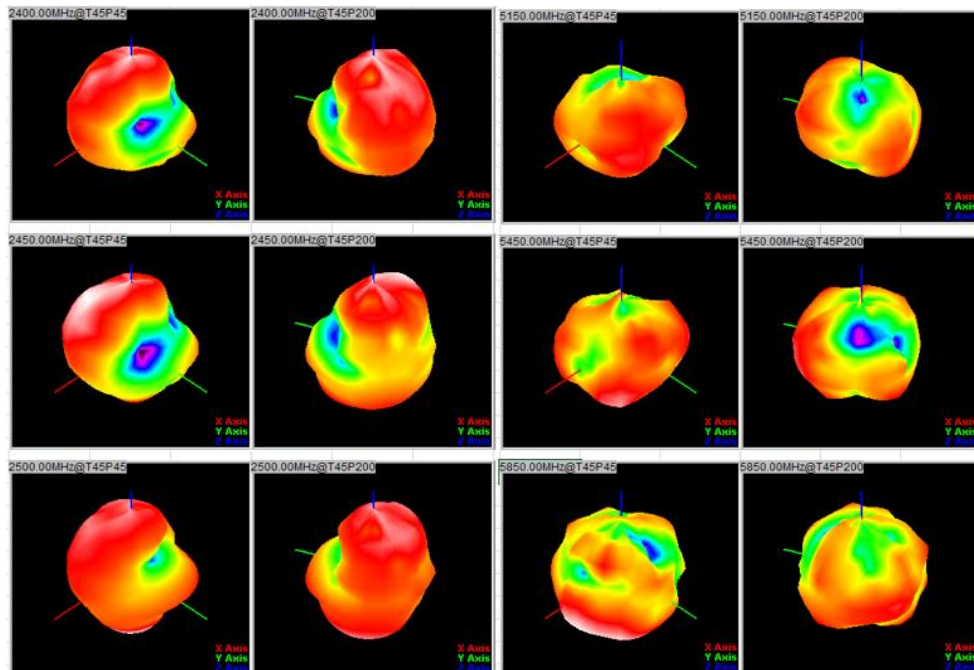
1. Using a low loss coaxial cable to link a standard handset jig,
2. Fixed this handset jig on chamber's rotator plane,
3. Linking jig into network analyzer port and using a probing horn antenna to collect data,
4. Using another standard gain horn antenna to calibrated those data.

|                                                                                                                            |                   |                                                                                                                                                                                                                         |                 |
|----------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| UNLESS OTHER SPECIFIED TOLERANCES ON :<br>X=±1            X.X=±0.1        X.XX=±0.01<br>ANGLES=±                HOLE DIA=± |                   |  肯特新工业技术有限公司<br>KINTER NEW INDUSTRIAL TECHNOLOGY CO., LTD                                                                            |                 |
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| DRAWN BY : 张行星                                                                                                             | CHECKED BY : 王浩   |                                                                                                                                                                                                                         |                 |
| DESIGNED BY : 李元豪                                                                                                          | APPROVED BY : 易珂湘 |                                                                                                                                                                                                                         |                 |
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### 3-2 Efficiency and Gain Value

| Frequency (MHz) | Efficiency (%) | Average GAIN (dB) | Peak GAIN (dBi) |
|-----------------|----------------|-------------------|-----------------|
| 2400            | 34.1%          | -4.68             | 1.44            |
| 2500            | 31.9%          | -4.92             | 1.02            |
| 5150            | 40.8%          | -3.89             | 1.80            |
| 5850            | 55.8%          | -2.23             | 4.00            |

### 3-3 3D Pattern



### 3-4 Conclusion

机器实测 WIFI 下载速率平均 4M。

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ANGLES=±      HOLE DIA=±

SCALE :

UNIT : mm

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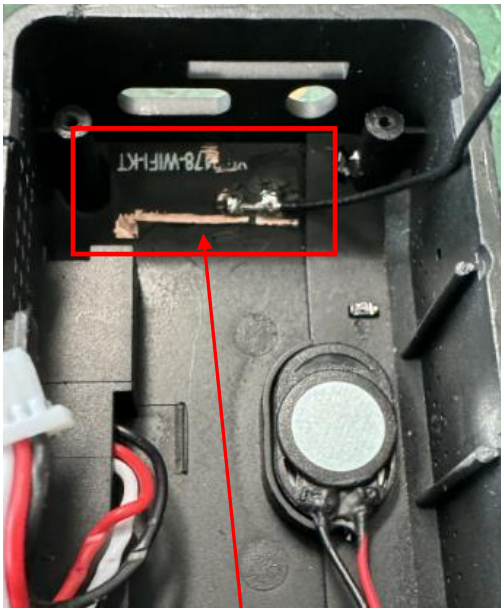
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4. Antenna mounting position



天线贴装位置如图所示

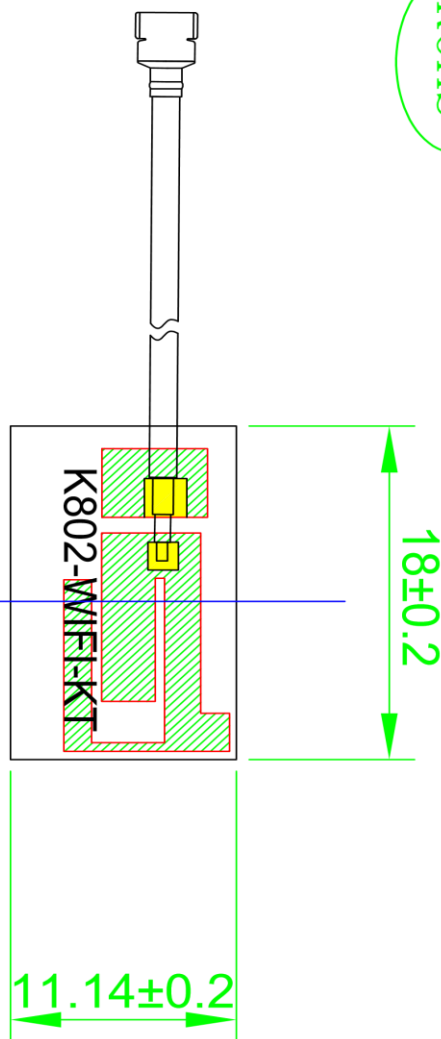
5. Mechanical Specification:

Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing Figure 5-1

|                                                                                                                    |                   |                                                                                                                                                                                                                         |                 |
|--------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
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| REV. | ECN NO. | LOCAS. | DESCRIPTION | DATE | DESIGN |
|------|---------|--------|-------------|------|--------|
| A0   |         |        |             |      |        |



背面离型纸断开线

天线焊接端

$1.00 \pm 0.3$   
 $1.50 \pm 0.3$   
 $2.00 \pm 0.3$

050±2

技术要求:

- 1.绿色阴影部分为电路,黄色部分为漏焊接点走线部分;
- 2.表面黑油,基材采用PI,电解铜,天线总厚度为 $0.12 \pm 0.03$ mm (不含离型纸);
- 3.打\*为重点尺寸公差 $\pm 0.05$ ;
- 4.所有材料符合环保ROHS标准。

深圳市肯特新工业技术有限公司

| DIM   | TOL        | DIM   | TOL        |
|-------|------------|-------|------------|
| X.    | $\pm 0.3$  | X.    | $\pm 0.3$  |
| X.X   | $\pm 0.2$  | X.X   | $\pm 0.2$  |
| X.XX  | $\pm 0.05$ | X.XX  | $\pm 0.05$ |
| X.XXX |            | X.XXX | $\pm 0.02$ |

|             |          |            |              |
|-------------|----------|------------|--------------|
| DRAW NO.    | DATE     | DRAW NAME: | K802-WIFI-KT |
| DESIGN: LHM | 25/01/11 | FILE:      | P/N NO.:     |
| CHECK:      |          | QTY:       | DRAWING NO.: |
| APPROVED:   |          | SCALE: 1:1 | UNIT: mm     |
|             |          | REV. A     | SHEET: N/A   |
|             |          | SCALE N/A  |              |

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ANGLES=±

HOLE DIA=±



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