

## Antenna specification for approval

Customer name: 合悦丰

Model : WB801

Antenna type : WIFI antenna

Antenna frequency band: 2.4G

Material : FPC

Color : Black

Material Number: F1146A-1R11B-130-A    Production date: 2022-09-21

Version: **A**

| Admit that signature   |  |                   |  |
|------------------------|--|-------------------|--|
| Confirmation Signature |  | Customer Approved |  |
|                        |  |                   |  |
| Responsible            |  | Responsible       |  |
| QC                     |  | Engineer          |  |
| Approve                |  | Approve           |  |
| Date                   |  | Date              |  |

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This approval sheet supports for MID project. FPC antennas include in this project. This report is for the performance of WIFI antenna.

- Antenna shape size: Meet the requirement of MID project
- Antenna band: 2400MHz~2500MHz
- Antenna material: Antenna material meet the requirement of MID
- Adhesive performance: Adhesive performance meet the requirement of MID

## Antenna performance SPEC overview

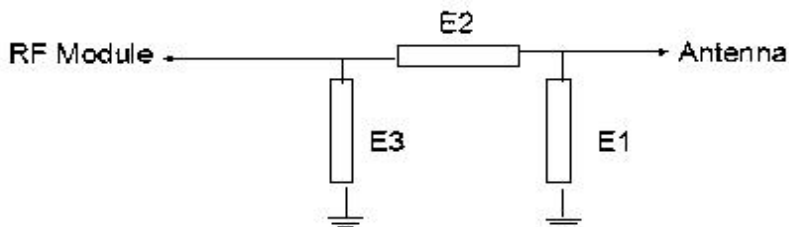
| Description            | 2.4GHz~2.5GHz             | Units |
|------------------------|---------------------------|-------|
| VSWR                   | $\leq 2.0$                |       |
| Average Antenna Gain   | $\geq 1.0$                | dB    |
| Antenna Efficiency     | $\geq 40$                 | %     |
| Feed Impedance         | 50 ohms                   |       |
| Operating Temperature  | -40 to +85 deg C          |       |
| Polarization / Azimuth | Linear / Omni-directional |       |

### • Mechanical Information

| Mechanical Dimension  |                  |
|-----------------------|------------------|
| Cable Length          | 130mm/Black      |
| Description           | WIFI antenna     |
| Material              | FPC              |
| Coaxial Cable         | 50Ohm/O.D.1.13mm |
| Environmental         |                  |
| Operation Temperature | -40 to +85 deg C |
| Storage Temperature   | -40 to +85 deg C |

## 2:Match the circuit diagram, antenna images

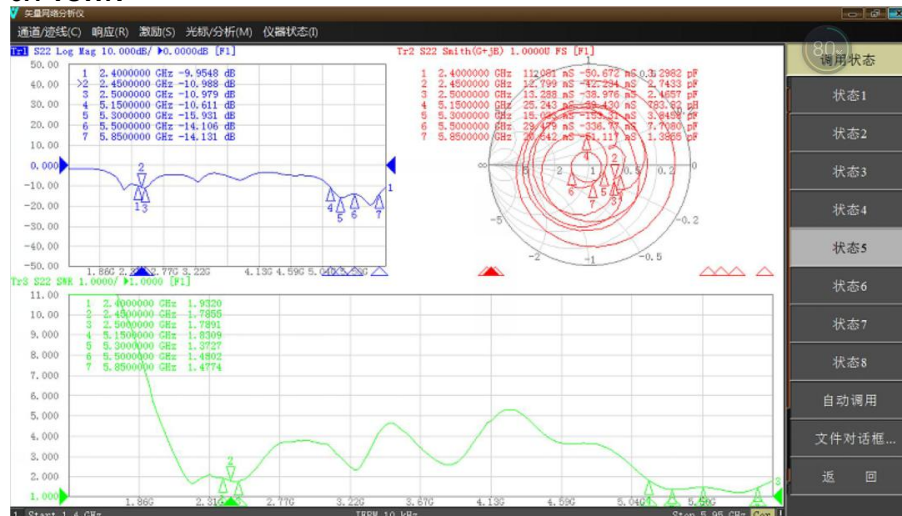
### 2.1 Match the circuit diagram



**Our company did not modify the antenna matching**

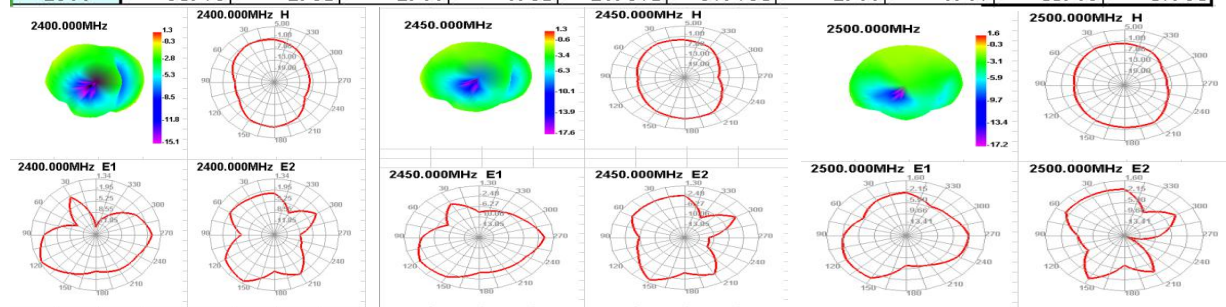
### 3: VSWR、Efficiency

#### 3.1 VSWR



#### 3.2 Efficiency

| Passive Test For WIFI2.4 |          |           |            |            |         |         |          |          |             |             |  |
|--------------------------|----------|-----------|------------|------------|---------|---------|----------|----------|-------------|-------------|--|
| Freq (MHz)               | Effi (%) | Effi (dB) | Gain (dBi) | Gain (dBd) | UHS (%) | DHS (%) | Max (dB) | Min (dB) | Attenut Hor | Attenut Ver |  |
| 2400                     | 53.34    | -2.73     | 1.35       | -1.47      | 20.703  | 32.638  | 0.68     | -7.37    | 48.04       | 48.09       |  |
| 2410                     | 48.04    | -3.18     | 1.29       | -1.66      | 18.519  | 29.518  | 0.49     | -7.81    | 47.59       | 47.64       |  |
| 2420                     | 48.65    | -3.13     | 1.18       | -1.37      | 18.29   | 30.36   | 0.78     | -7.82    | 47.92       | 48.01       |  |
| 2430                     | 48.24    | -3.17     | 1.12       | -1.17      | 17.768  | 30.467  | 0.98     | -7.88    | 47.46       | 47.57       |  |
| 2440                     | 52.1     | -2.83     | 1.5        | -0.65      | 18.484  | 33.613  | 1.5      | -7.37    | 47.72       | 47.88       |  |
| 2450                     | 50.66    | -2.95     | 1.61       | -0.54      | 17.868  | 32.791  | 1.61     | -7.52    | 47.65       | 47.81       |  |
| 2460                     | 48.23    | -3.17     | 1.53       | -0.62      | 16.994  | 31.236  | 1.53     | -7.69    | 47.84       | 47.97       |  |
| 2470                     | 49.44    | -3.06     | 1.81       | -0.34      | 17.343  | 32.099  | 1.81     | -7.55    | 47.92       | 48.04       |  |
| 2480                     | 55.15    | -2.58     | 2.38       | 0.23       | 19.234  | 35.915  | 2.38     | -7.08    | 47.86       | 47.88       |  |
| 2490                     | 60.33    | -2.19     | 2.71       | 0.56       | 21.417  | 38.914  | 2.71     | -6.45    | 48.2        | 48.18       |  |
| 2500                     | 58.73    | -2.31     | 2.66       | 0.51       | 20.971  | 37.758  | 2.66     | -6.67    | 48.05       | 47.98       |  |



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