

## WA-P-LA-03-256 Specification

## History List

[illegible]

# WA-P-LA-03-256 Specification

## 1. Explanation of part number :

**WA**    **P**    **LA**    **03**    **256**  
(1)        (2)        (3)        (4)        (5)

(1) Product Type : Wireless Antenna

(2) Material: PCB

(3) Frequency : WIFI (2.4GHz-2.5GHZ)

(4) Coaxial Cable Type : 03

(5) Suffix : 256

## 2. Electrical Specification :

*Those specifications were specially defined for WIFI model, and all characteristics were measured under the model's handset testing .*

### 2-1. Frequency Band:

| Frequency Band | GHz      |
|----------------|----------|
| WIFI           | 2.4-2.5G |

### 2-2. Impedance

50 ohm nominal

1 UNLESS OTHER SPECIFIED TOLERANCES ON :

X=±            X.X=±        X.XX=±  
ANGLES=±            HOLEDIA=±



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SCALE :

UNIT : mm

DRAWN BY: 李美娟

CHECKED BY: 李志强

DESIGNED BY: 胡志清

APPROVED BY: 唐龙

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## 2-3. VSWR

### 2-3-1.Measurement frequency points and VSWR value

| Frequency（MHz） | 2400 | 2450 | 2500 |
|----------------|------|------|------|
| VSWR           | 3.75 | 3.64 | 3.73 |

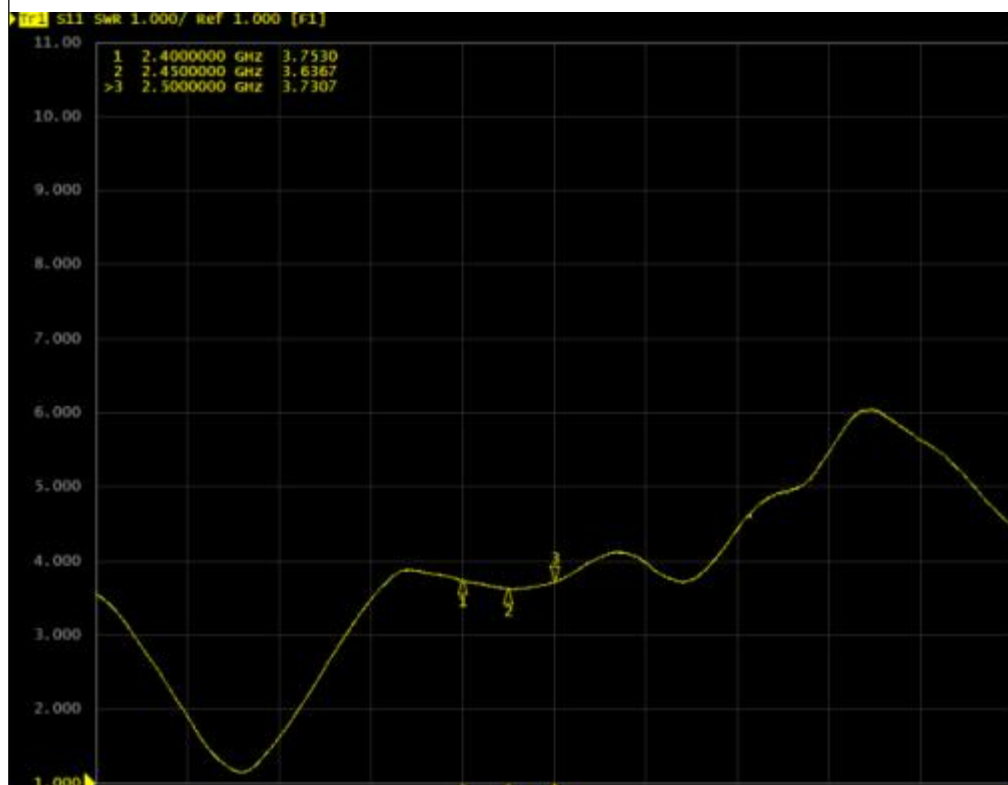
### 2-3-2. VSWR

| Frequency Band(MHz)   | 2400 | 2450 | 2500 |
|-----------------------|------|------|------|
| 2-3-3. Typical Value: | ≤5.0 | ≤5.0 | ≤5.0 |

#### 2-3-4 Measuring Method

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

#### 2-3-5 Picture



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## 2-4. Efficiency and Gain

■ Measuring Instruments: Microwave Anechoic Chamber, Network Analyzer, Standard Antenna.

■ Microwave Anechoic Chamber Description:

This is the microwave anechoic chamber set up by our company in Shenzhen. The microwave anechoic chamber is part of a far-field measurement system. The size of the chamber is 2.6 meters x 1.6 meters x 1.6 meters, and the size of the quiet zone is 15 centimeters x 15 centimeters x 15 centimeters.

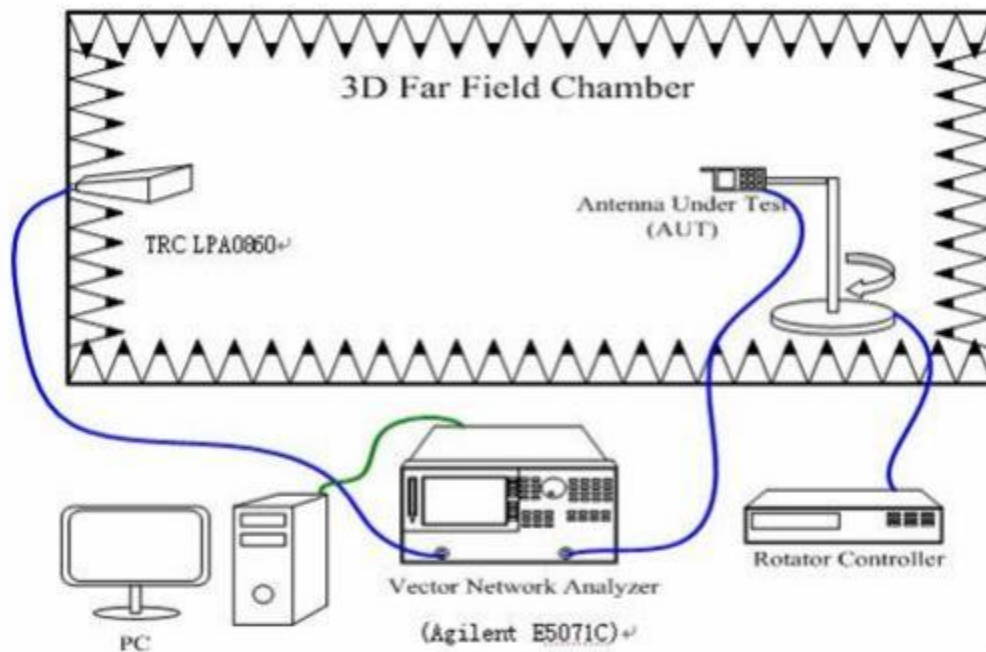


Figure 1: The internal equipment of the microwave anechoic chamber

3UNLESS OTHER SPECIFIED TOLERANCES ON :

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ANGLES=± HOLEDIA=±

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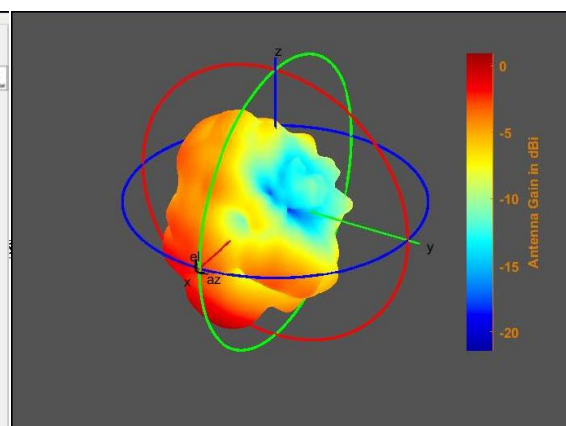
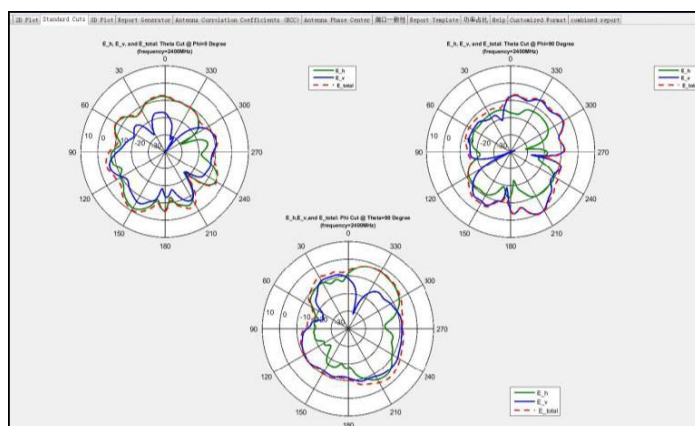
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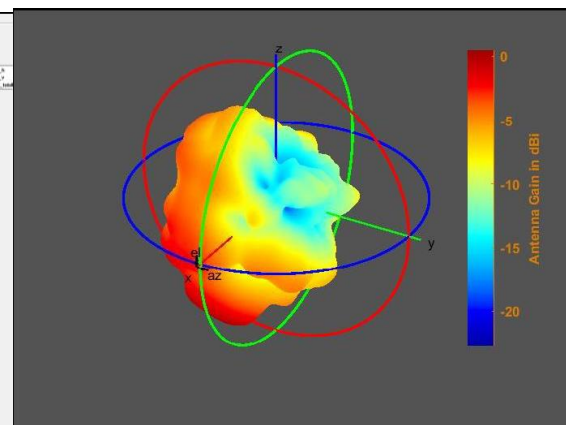
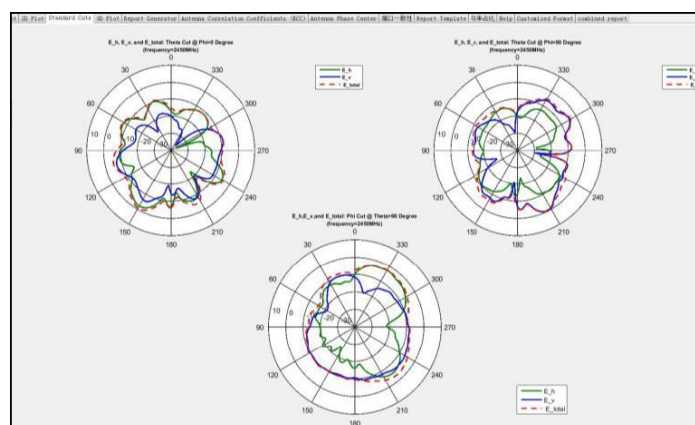
## 2-4-1 Efficiency and Gain

| Frequency (MHz) | Gain(dB) | Efficiency(dB) | Efficiency(%) |
|-----------------|----------|----------------|---------------|
| 2400            | 0.9213   | -6.1689        | 24.1605       |
| 2410            | 0.5247   | -6.6206        | 21.7739       |
| 2420            | 0.3163   | -6.862         | 20.597        |
| 2430            | -0.0362  | -7.2678        | 18.7594       |
| 2440            | 0.3896   | -7.0151        | 19.8836       |
| 2450            | 0.4664   | -6.8105        | 20.8423       |
| 2460            | -0.336   | -7.6267        | 17.2714       |
| 2470            | -0.674   | -7.9029        | 16.2072       |
| 2480            | -0.4297  | -7.6696        | 17.1017       |
| 2490            | -0.0881  | -7.4625        | 17.9369       |
| 2500            | -0.4043  | -7.2714        | 17.8887       |

## 2-4-2 Radiation Patterns



2400Mhz



2450Mhz

4UNLESS OTHER SPECIFIED TOLERANCES ON :

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ANGLES=± HOLEDIA=±

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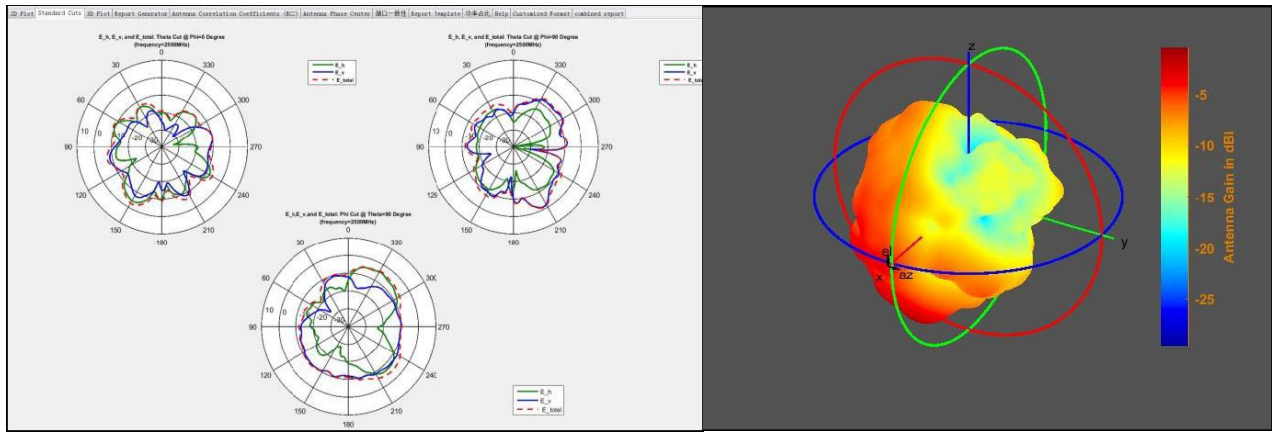
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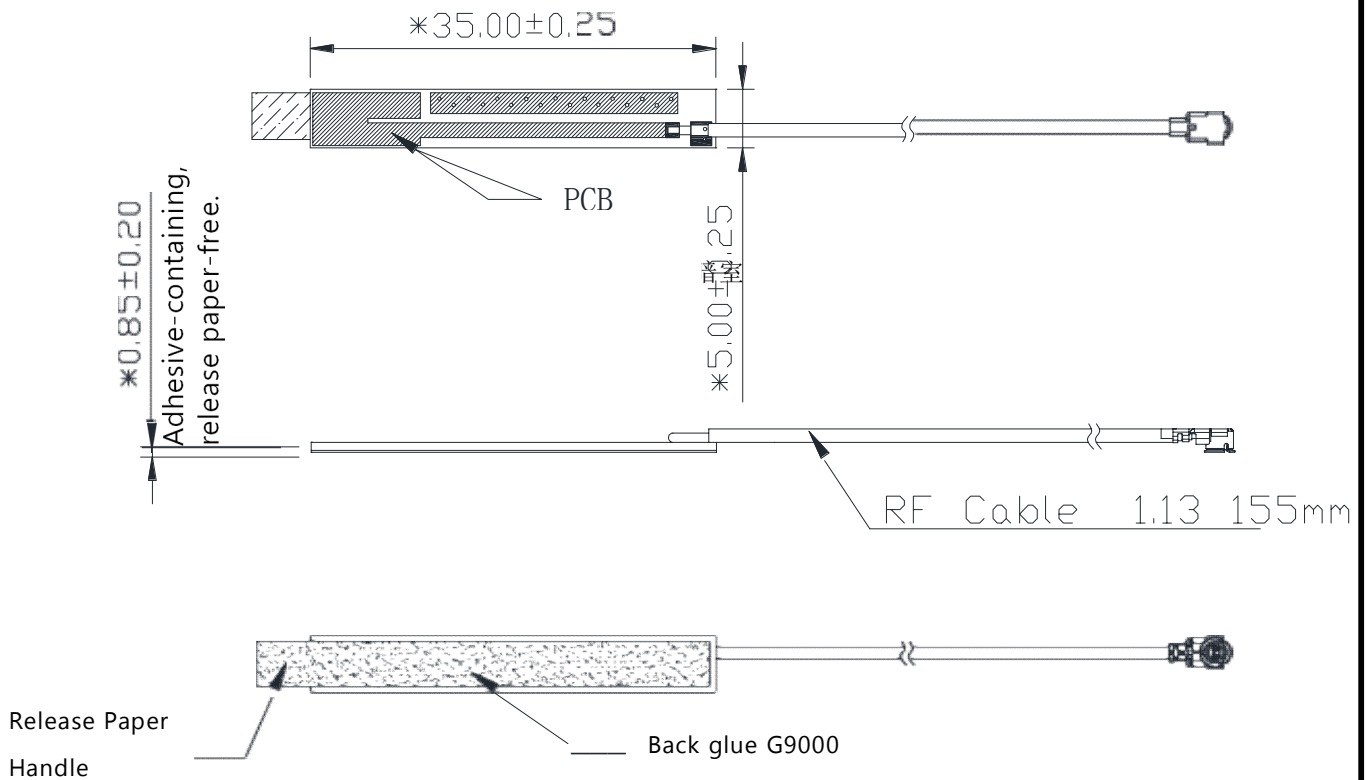
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2500Mhz

### 3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm) (\* dimension is important dimension)  
The appearance of the antenna is according to drawing Figure 3-1-1



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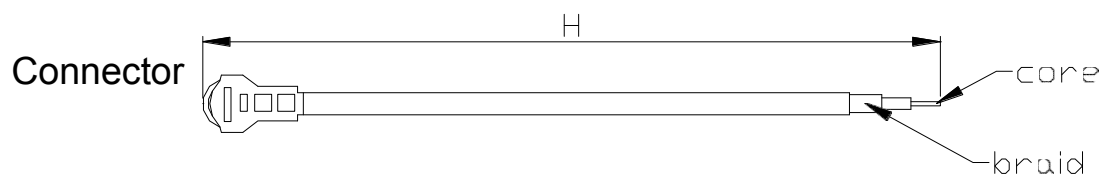
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### 3-2. Cable Length:



Connector: I-PEX MHF; Cable: RF Cable 1.13 (Gray)  
Wire Length (Including Connectors) H: 155±3mm

5UNLESS OTHER SPECIFIED TOLERANCES ON:

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ANGLES=±      HOLEDIA=±



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