

WAG-F-LA-00-210 Specification

1. Explanation of part number :

WAG F LA 00 210
 (1) (2) (3) (4) (5)

- (1) Product Type: Wireless Antenna
- (2) Material: FPC
- (3) Frequency :2400-2500 MHz
- (4) Coaxial Cable Type : 00
- (5) Suffix : 210

2. Storage Condition:

Temperature -40 to +85°C
 Humidity 20 to 65 %RH

Recommended storage condition:

Store in room condition as listed below: Temperature -20°C~+45°C, Humidity 80% Max.

3. Operating Condition:

Temperature -40 to +85°C
 Humidity 10 to 85 %RH

4. Electrical Specification :

Those specifications were specially defined for WLAN model, and all characteristics were measured in the customer's machine. .

4-1. Frequency Band:


| | |
|--------------------|--------------|
| Frequency Band | MHz |
| Bluetooth 2.4-2.5G | 2400-2500MHz |

4-2. Impedance

50 ohm nominal

4-3. Matching circuit

None

| | | | | |
|---|-------------------|---|---------------------|-----------------|
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| DESIGNED BY:单动力 | APPROVED BY : 范东亚 | | | |
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4-4. VSWR

| | | |
|-----------------------|------------|------------|
| Frequency Band | 2400 | 2500 |
| 4-4-1. Typical Value: | ≤ 5.0 | ≤ 5.0 |

| | |
|-------------------------|---|
| 4-4-2. Measuring Method | <ol style="list-style-type: none"> 1. A 50Ω coaxial cable is connected to the fpcb antenna. Then this cable is connected to a network analyzer to measure the VSWR. 2. Keeping this jig away from metal at least 20 cm. |
|-------------------------|---|

| | |
|----------------|--|
| 4-4-3. Picture | |
|----------------|--|

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4-5. Efficiency and Gain

4-5.1 Measuring equipment

Measuring instrument:

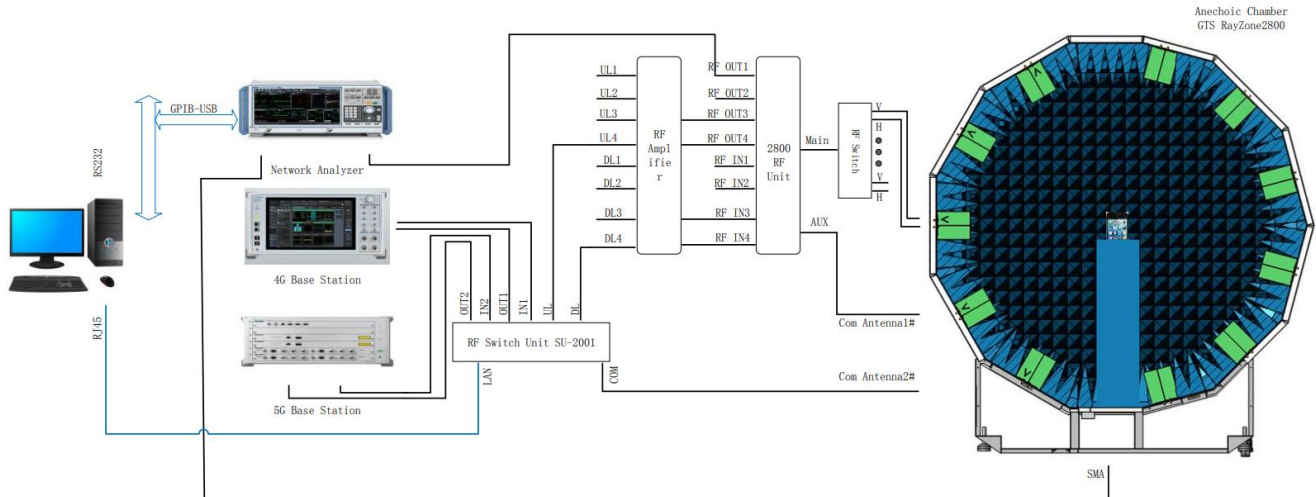
Microwave chamber, Network analyzer, and standard antenna.

Instructions for microwave chamber:

This is a microwave chamber set up by our company in Suzhou, This microwave chamber belongs to a set of near-field measurement system. The size of the chamber is 2.95M * 3M * 3M.



RayZone2800 Test Setup



The microwave chamber, shown above, using a unique multi-probe technique, The aim is to reduce the measurement time of the whole measurement system. The measuring system use multi-probe array instead of single probe to scan the measured surface of the antenna under test, a single probe has the capability of measuring orthogonal polarization amplitude and phase, it also has a wide frequency range, the corresponding multi-probe array is switched quickly by electronic switch, greatly improved the measurement efficiency.

The probe model: MA186960A(400MHz~7.5GHz) . Because of its capability of broadband frequency and the orthogonal polarization function, the number of probes needed to be equipped with the system is reduced; The small size of the probe reduces the coupling between the probes, make it is possible to insert probes of other frequency bands between probes, then a single system can support a wider frequency range.

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4-5.2 Efficiency and Gain

Bluetooth 2.4-2.5G

| FS L | | | |
|-----------------|------------------|----------------|---------------|
| Frequency (MHz) | Efficiency (dBI) | Efficiency (%) | Peakgain (dB) |
| 2400 | -9.8 | 10.6 | -5.5 |
| 2410 | -9.4 | 11.5 | -5.1 |
| 2420 | -9.2 | 11.9 | -5.1 |
| 2430 | -8.7 | 13.4 | -4.9 |
| 2440 | -8.1 | 15.5 | -4.1 |
| 2450 | -7.6 | 17.3 | -3.7 |
| 2460 | -7.7 | 16.8 | -4.4 |
| 2470 | -8.1 | 15.4 | -4.7 |
| 2480 | -8.1 | 15.6 | -4.3 |
| 2490 | -8.6 | 13.7 | -4.6 |
| 2500 | -9.7 | 10.8 | -5.5 |

| | | |
|---------------------|--------|--------|
| Frequency Band(MHz) | 2400 | 2500 |
| Efficiency(dB) | ≥-10.5 | ≥-10.5 |
| Peak Gain(dBi) | ≤3.0 | ≤3.0 |

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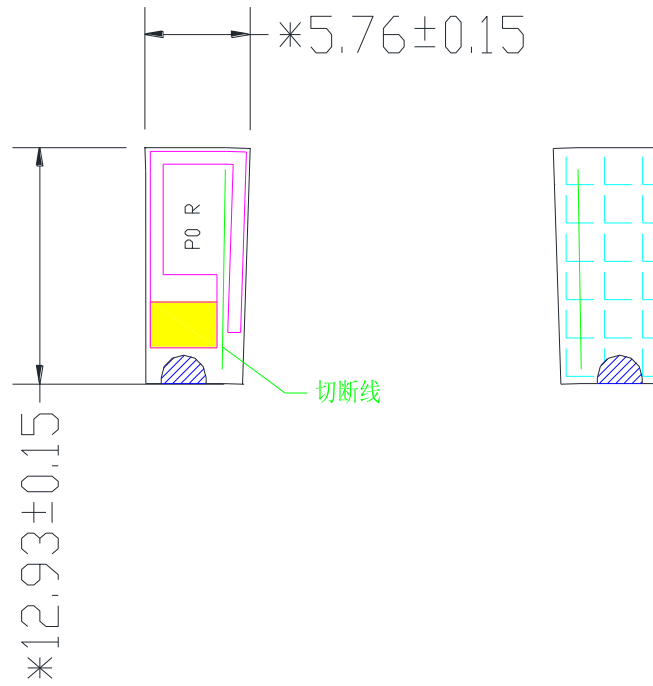
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5. Mechanical Specification:



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