

[illegible]

WAG-M-LA-00-046-1 Specification

1. Explanation of part number :

WAG M LA 00 046
(1) (2) (3) (4) (5)

(1) Product Type: Wireless Antenna

(2) Material: Copper-Nickel-Zinc Alloy

(3) Frequency : 2400-2500 MHz

(4) Coaxial Cable Type : 00

(5) Suffix : 046

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
BT	2400-2500

4-2. Impedance

50 ohm nominal

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ANGLES = ± HOLEDIA = ±



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4-3. Matching circuit

None

4-4. VSWR

Frequency Band	2400	2500
4-4-1. Typical Value:	≤ 2.5	≤ 2.5
4-4-2. Measuring Method	1. A 50Ωcoaxial cable is connected to the pcb 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:

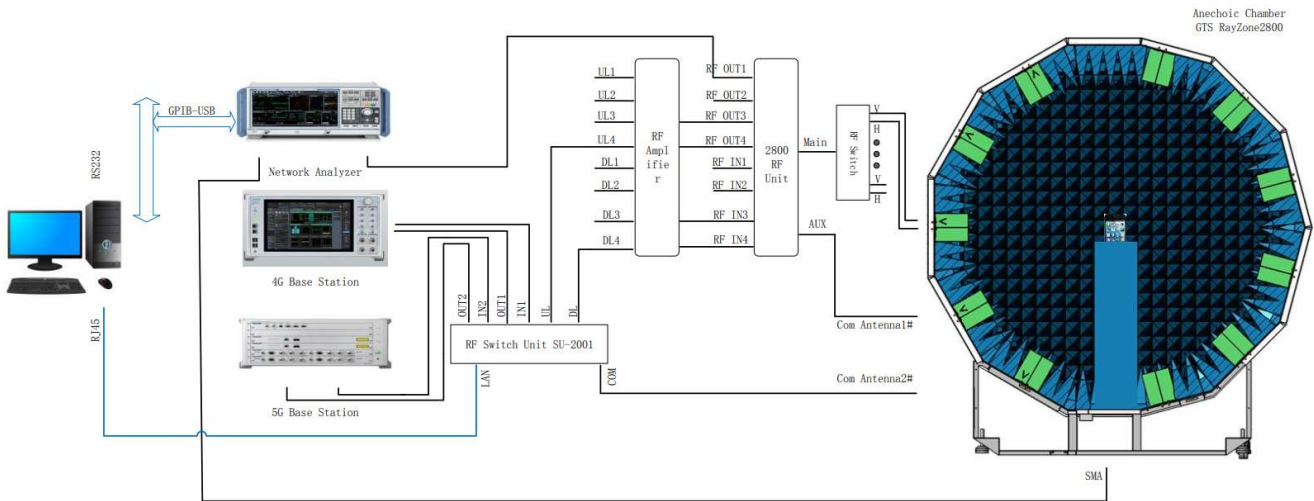
Microwave chamber, Network analyzer, and standard antenna.

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

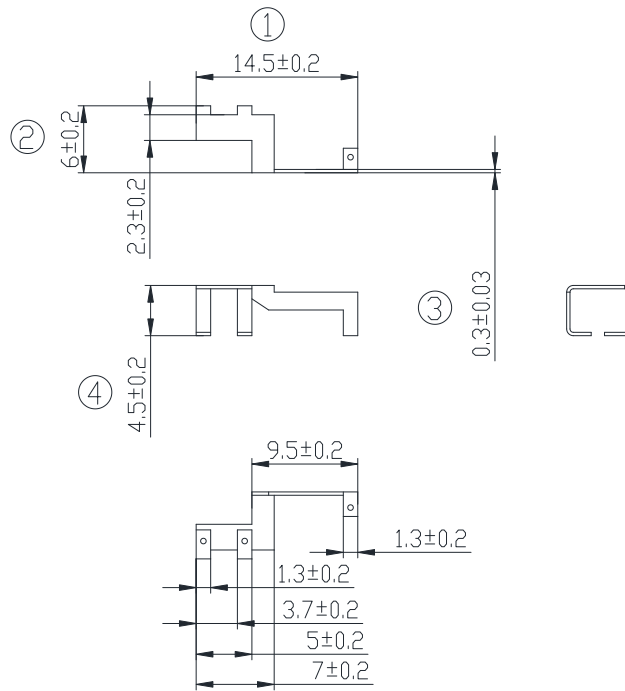
BT

Frequency (MHz)	Efficiency (%)	Gain (dBi)
2400	14.34	-4.28
2410	15.57	-3.68
2420	15.65	-3.60
2430	16.62	-3.70
2440	18.92	-3.60
2450	19.37	-3.49
2460	18.75	-3.61
2470	17.39	-3.86
2480	15.52	-4.44
2490	13.66	-4.97
2500	12.12	-5.54

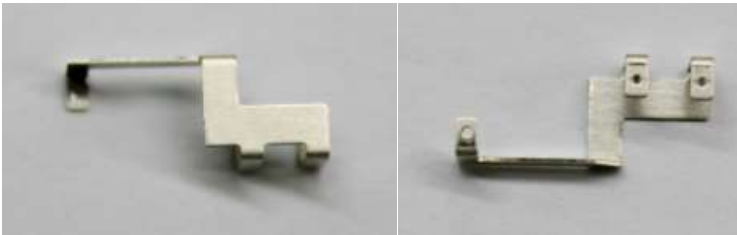
Frequency Band(MHz)	2400	2500
Efficiency(%)	≥10	≥10
Gain(dBi)	≤-3.5	≤-4.5

5. Mechanical Specification:

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6. Assembly precautions:



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