

[illegible]

WA-F-LB-01-125 Specification

1. Explanation of part number :

$\frac{WA}{(1)} - \frac{F}{(2)} - \frac{LB}{(3)} - \frac{01}{(4)} - \frac{125}{(5)}$

(1) Product Type: Wireless Antenna

(2) Material: FPCB

(3) Frequency : 2400~2500MHz, 5150~5850MHz, 5925~7125MHz

(4) Coaxial Cable Type : 01

(5) Suffix :125

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 **SD04**, and all characteristics were measured in the customer's machine. .

4-1. Frequency Band:

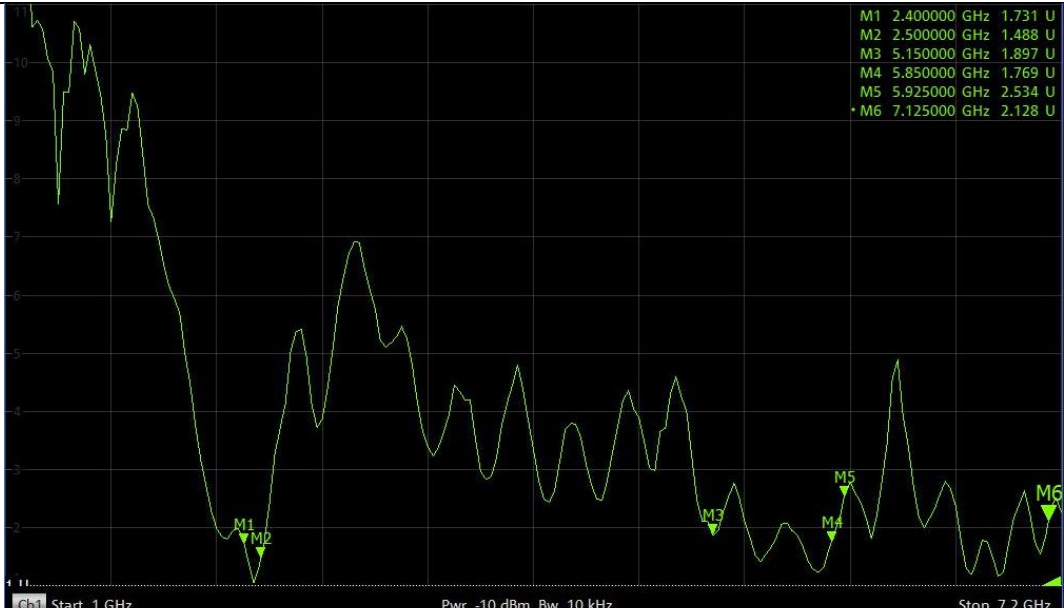
Frequency Band	MHz
WiFi	2400~2500MHz, 5150~5850MHz, 5925~7125MHz

4-2. Impedance

50 ohm nominal

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DESIGNED BY: 吴振江	APPROVED BY : 范东亚		
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4-3. VSWR

Frequency Band	2400	2500	5150	5850	5925	7125
Typical Value:	≤ 3.0	≤ 3.0	≤ 3.0	≤ 3.0	≤ 3.0	≤ 3.0
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.					
Picture						

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4-4. Efficiency and Gain

4-4-1 Measuring equipment

Measuring instrument:

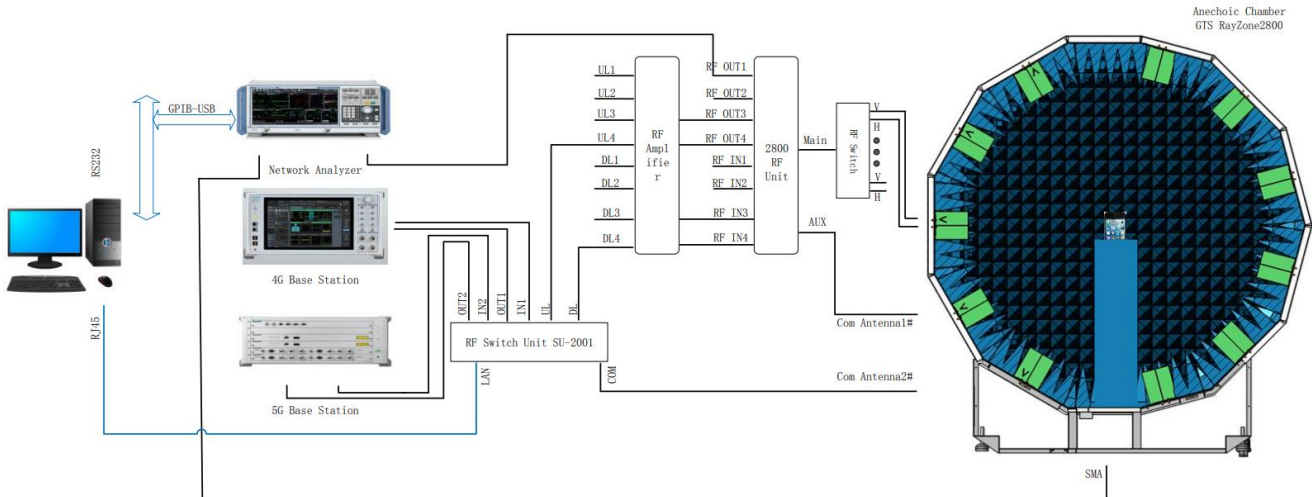
Microwave chamber, Network analyzer, and standard antenna.

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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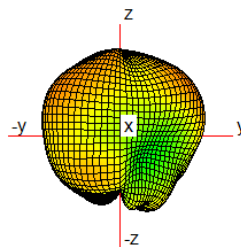
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4-4-2 Efficiency and Gain

Freq(MHz)	Efficiency_dB	Efficiency_Pcent	Gain
2400	-5.3	29.8	0.4
2450	-4.9	32.2	0.3
2500	-5.3	29.4	0.2
5150	-7.5	17.7	-1.0
5250	-7.4	18.4	-1.1
5350	-7.0	20.1	-0.8
5470	-7.8	16.6	-1.7
5600	-7.5	17.9	-0.4
5725	-7.0	19.8	-0.8
5785	-6.7	21.5	-0.8
5800	-6.8	20.8	-1.0
5850	-7.1	19.7	-0.8
5925	-8.4	14.3	-2.0
6025	-8.7	13.6	-1.7
6125	-8.8	13.1	-1.6
6225	-8.6	13.7	-1.3
6325	-8.9	13.0	-1.3
6425	-8.8	13.2	-1.1
6525	-8.7	13.4	-0.4
6625	-7.8	16.5	-1.4
6725	-6.4	22.7	-0.1
6825	-6.5	22.5	0.6
6925	-6.7	21.2	0.9
7025	-7.4	18.3	0.5
7125	-7.3	18.7	0.8

5. Antenna 3D Radiation Pattern:

2450MHZ



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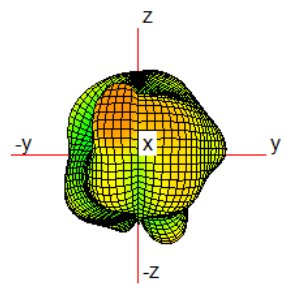
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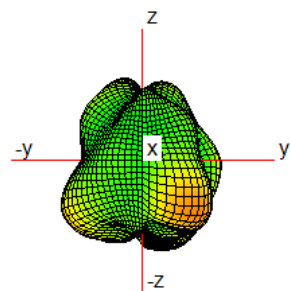
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5470MHZ



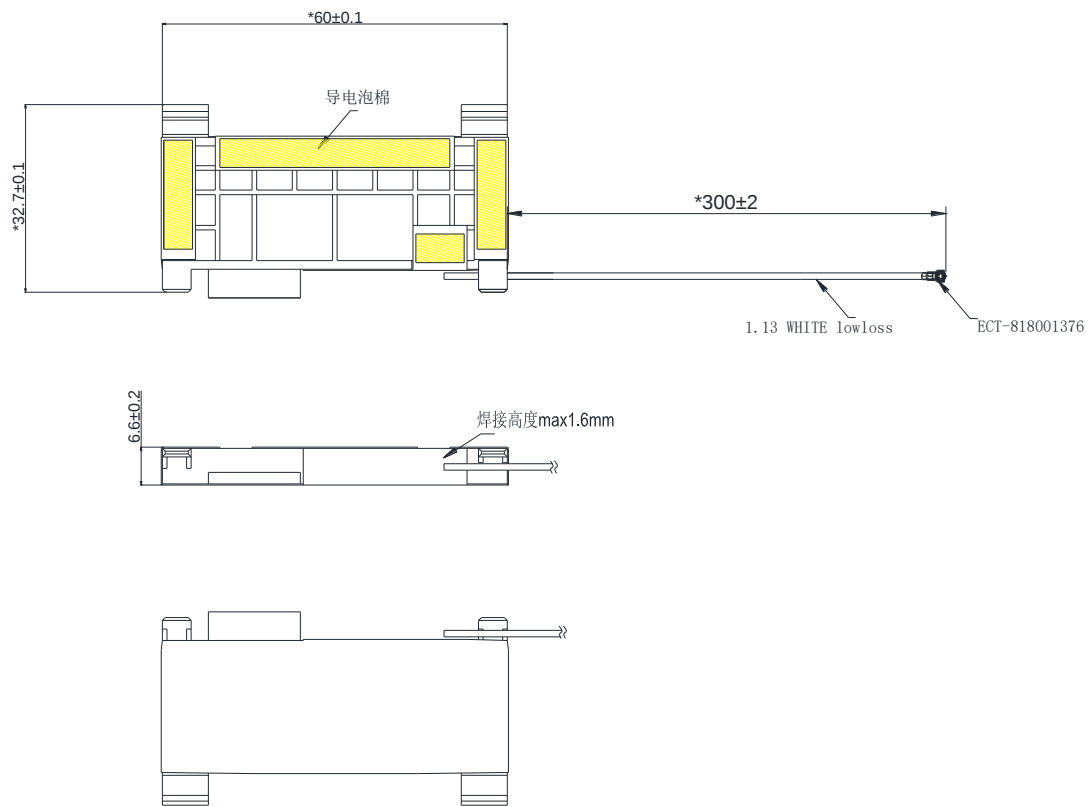
6525MHZ



6. Antenna Dimensions:(unit:mm)

标注尺寸为 FAI 尺寸，*号尺寸为 CPK 尺寸

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7. UL File No:

ITEM	DESCRIPTION	SUPPLIER	UL File No
1	FPCB		
2	CABLE	HA0008	E318898

8. Assembly precautions:

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