

[illegible]

WA-F-LB-02-377 Specification

1. Explanation of part number :

$\frac{WA}{(1)} - \frac{F}{(2)} - \frac{LB}{(3)} - \frac{02}{(4)} - \frac{377}{(5)}$

(1) Product Type: Wireless Antenna

(2) Material: FPCB

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

(4) Coaxial Cable Type : 02

(5) Suffix :377

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:

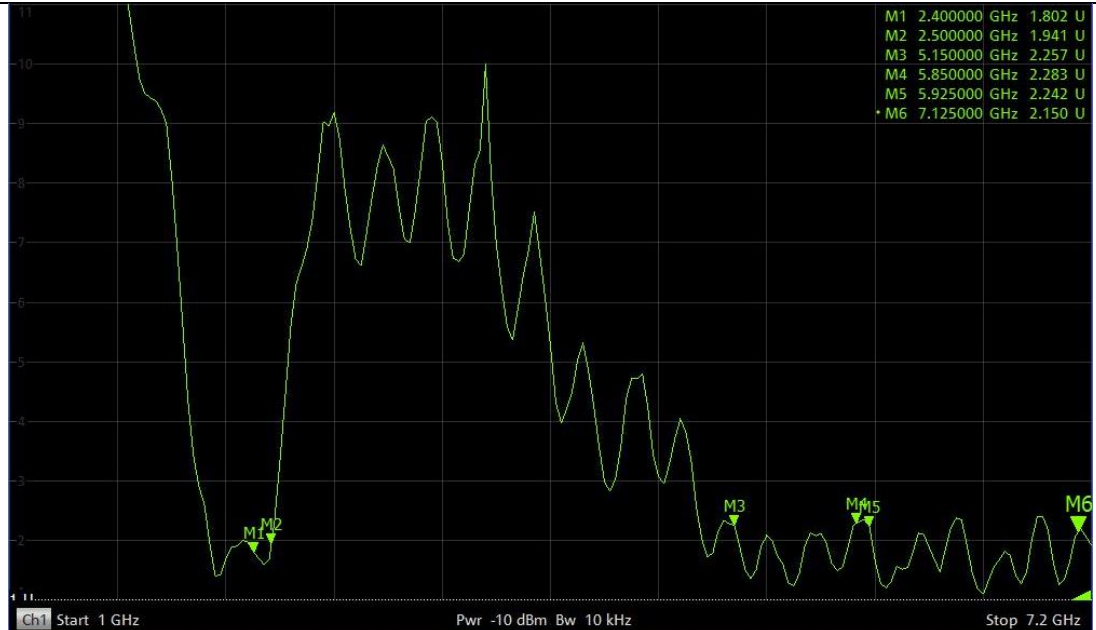
Frequency Band	MHz
WiFi	2400~2500MHz, 5150~5850MHz, 5925~7125MHz

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

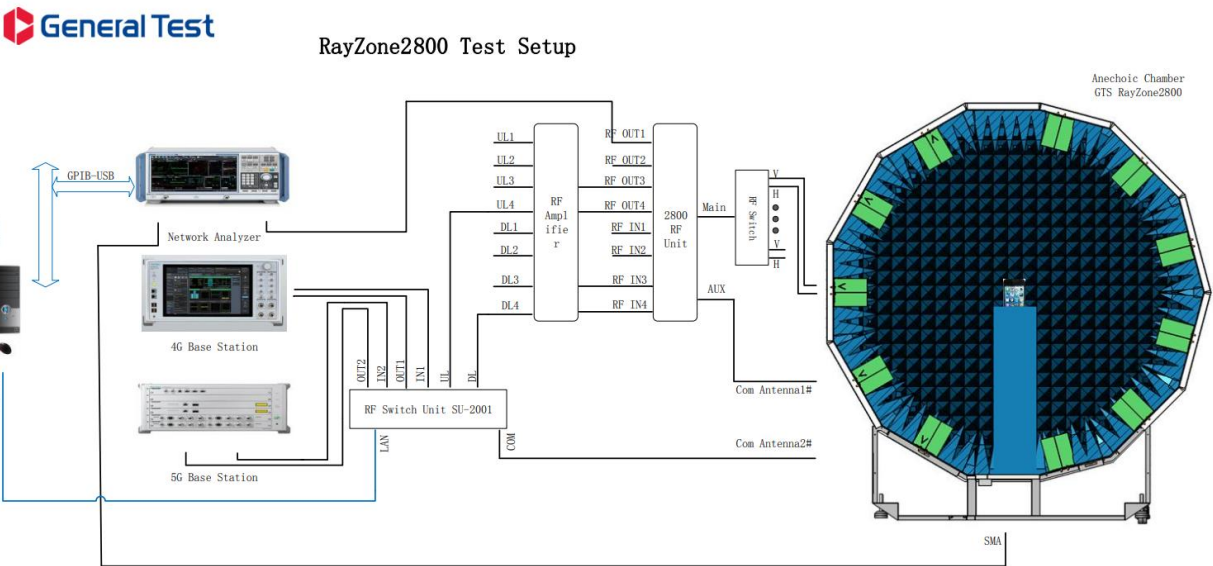
4-4-1 Measuring equipment

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.



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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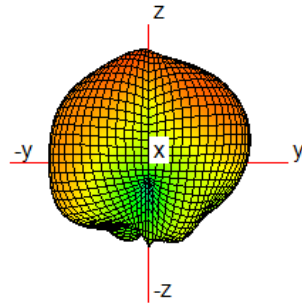
4-4-2 Efficiency and Gain

Freq(MHz)	Efficiency_dB	Efficiency_Pcent	Gain
2400	-5.5	28.1	0.6
2450	-5.2	30.5	1.8
2500	-5.2	29.9	0.9
5150	-7.4	18.3	-1.1
5250	-6.5	22.6	0.3
5350	-6.8	21.1	-0.6
5470	-7.0	20.2	-1.0
5600	-6.7	21.5	-0.5
5725	-7.0	20.0	-0.1
5785	-6.7	21.1	-0.2
5800	-7.1	19.5	-0.8
5850	-7.6	17.5	-1.3
5925	-8.3	14.8	-1.3
6025	-7.8	16.5	-1.5
6125	-7.6	17.4	-1.4
6225	-8.4	14.5	-2.3
6325	-8.4	14.4	-1.7
6425	-8.8	13.3	-1.7
6525	-8.8	13.2	-1.9
6625	-8.3	14.7	-1.0
6725	-8.3	14.6	-0.9
6825	-8.7	13.5	-0.6
6925	-8.6	13.7	-1.2
7025	-8.7	13.5	-1.1
7125	-8.7	13.3	-1.8

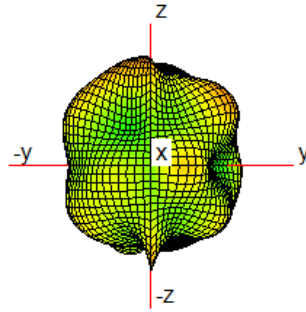
5. Antenna 3D Radiation Pattern:

2450MHZ

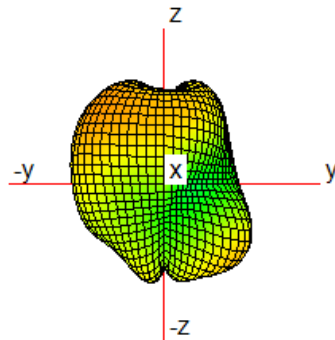
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5470MHZ



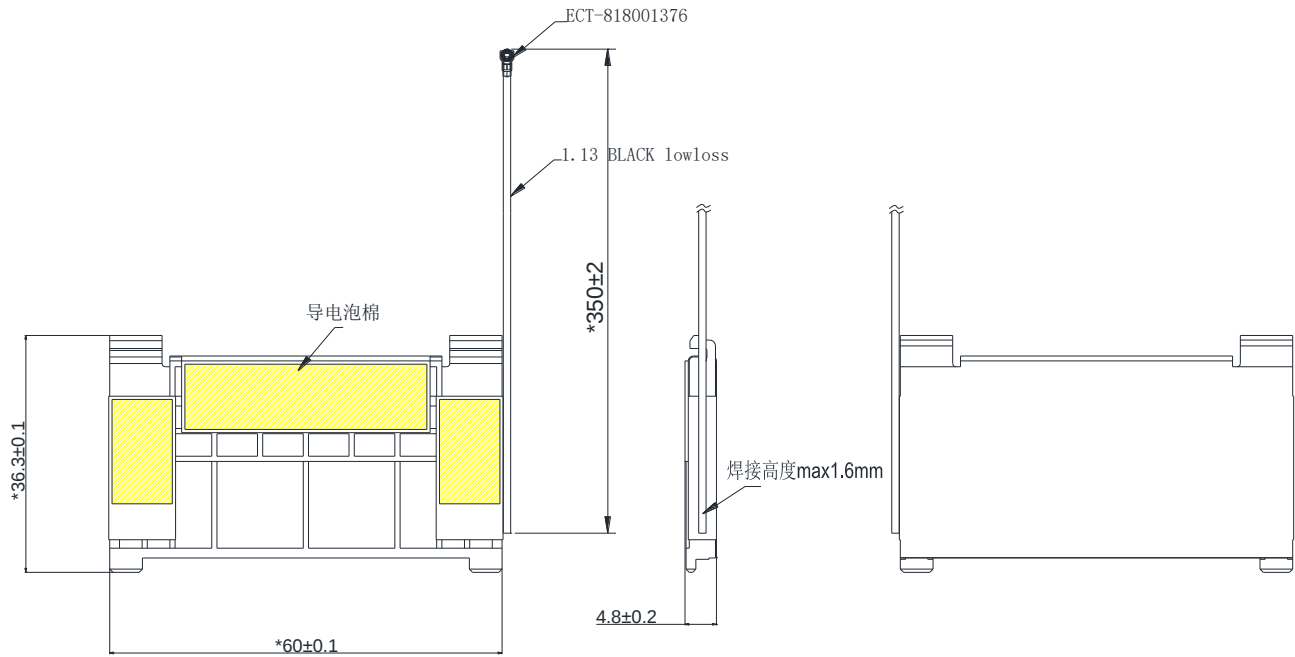
6525MHZ



6. Antenna Dimensions:(unit:mm)

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标注尺寸为 FAI 尺寸，*号尺寸为 CPK 尺寸



7. UL File No:

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

8. Assembly precautions:

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