

[illegible]

WA-F-LE-03-006 Specification

1. Explanation of part number :

WA - F - LE - 03 - 006
(1) (2) (3) (4) (5)

(1) Product Type: Wireless Antenna

(2) Material: FPCB+ Holder+ Cable

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

(4) Coaxial Cable Type : 03

(5) Suffix :006

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:

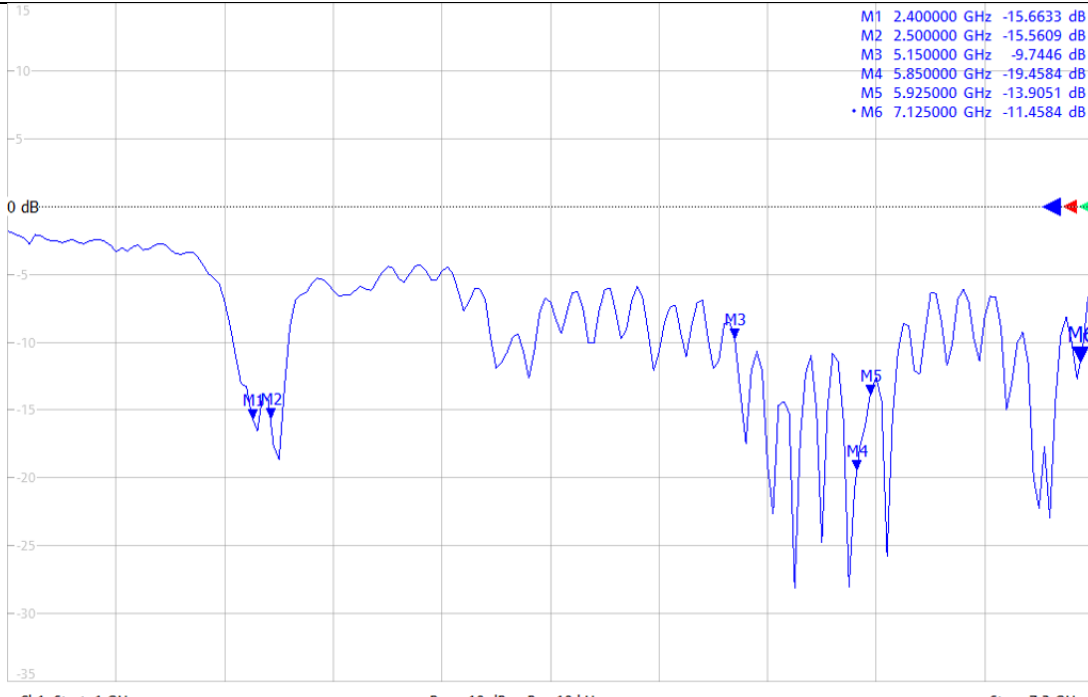
Frequency Band	MHz
WiFi	2400~2500MHz, 5150~5850MHz, 5925~7125MHz

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. S11

Frequency Band	2400	2500	5150	5850	5925	7125
Typical Value:	≤ -10.0	≤ -10.0	≤ -5.0	≤ -8.0	≤ -8.0	≤ -5.0
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

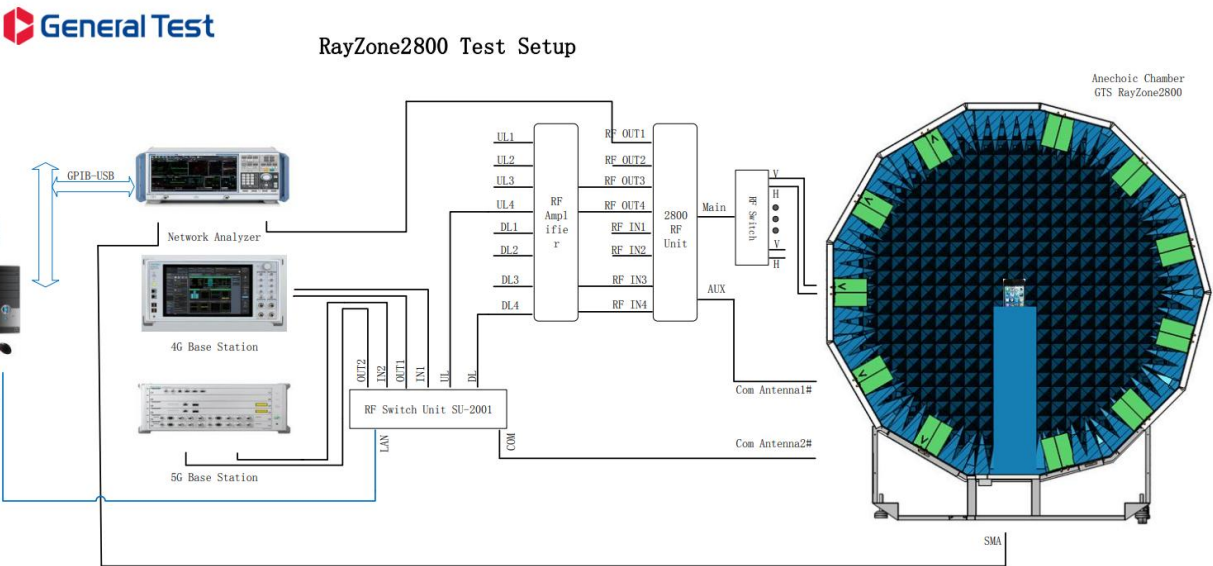
4-4-1 Measuring equipment

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.

4-4-2 Efficiency and Gain

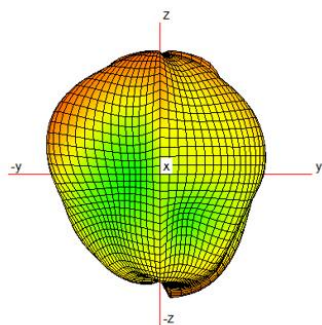
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Freq(MHz)	Efficiency_dB	Efficiency_Pcent	Gain
2400	-5.6	27.3	0.6
2450	-5.3	29.6	0.6
2500	-5.0	31.7	0.9
5150	-7.1	19.4	-2.7
5250	-6.6	21.7	-2.0
5350	-6.4	22.8	-0.3
5470	-6.2	24.0	0.4
5600	-6.1	24.3	1.2
5725	-6.8	20.9	-0.2
5785	-5.8	26.3	0.9
5800	-5.7	26.7	1.0
5850	-5.9	25.9	0.5
5925	-6.2	23.8	-0.2
6025	-6.8	21.0	-1.6
6125	-8.1	15.4	-2.0
6225	-8.8	13.2	-3.0
6325	-9.1	12.3	-3.4
6425	-9.6	11.0	-4.5
6525	-9.5	11.2	-4.3
6625	-10.4	9.1	-3.9
6725	-10.0	9.9	-3.6
6825	-9.3	11.8	-3.1
6925	-9.2	12.0	-2.2
7025	-9.9	10.2	-3.4
7125	-9.5	11.2	-1.1

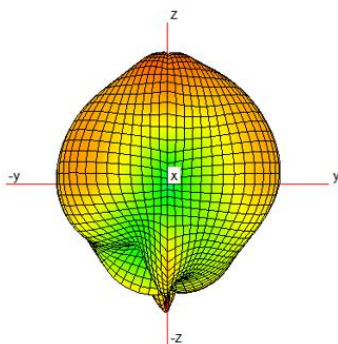
5. Antenna 3D Radiation Pattern:

2450MHZ

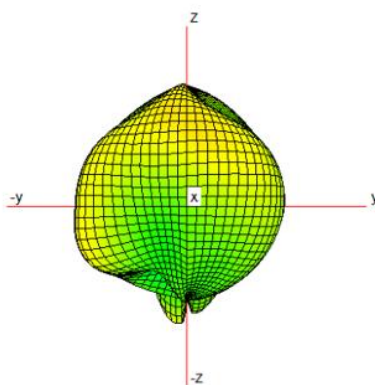
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5470MHZ



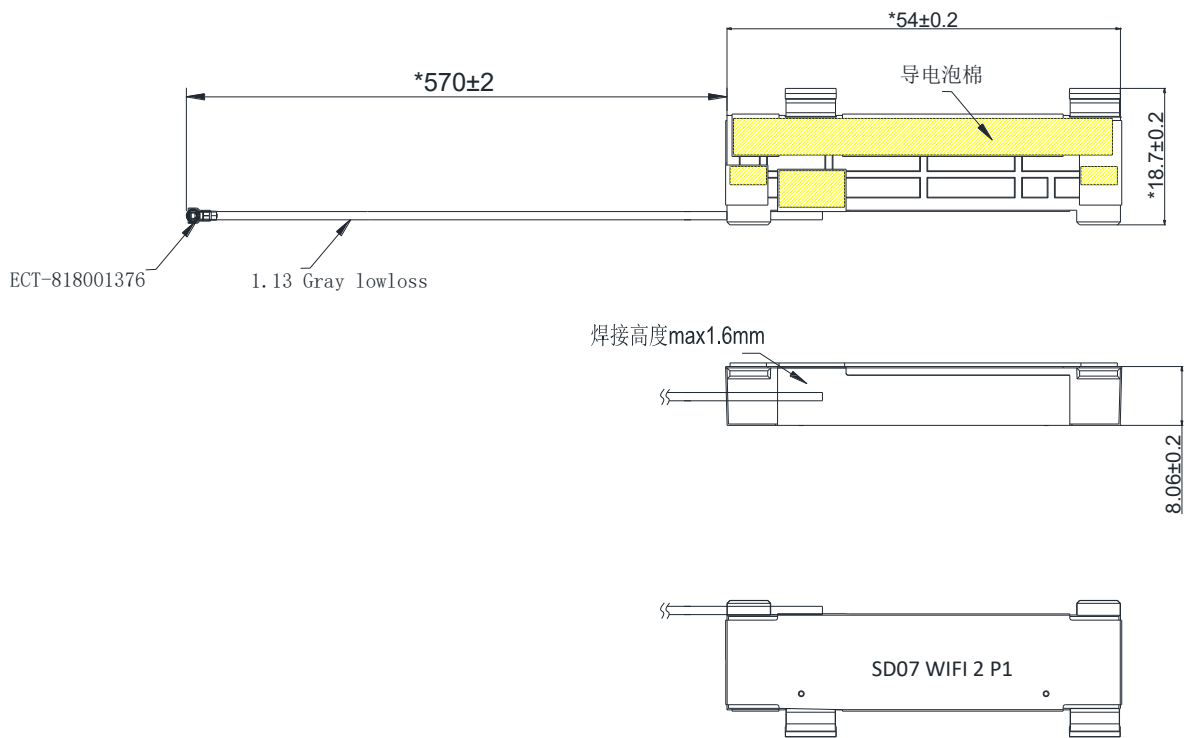
6525MHZ



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. Assembly precautions:

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