

[illegible]

WA-F-LE-01-024 Specification

1. Explanation of part number :

WA - F - LE - 01 - 024
(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 : 01

(5) Suffix :024

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:

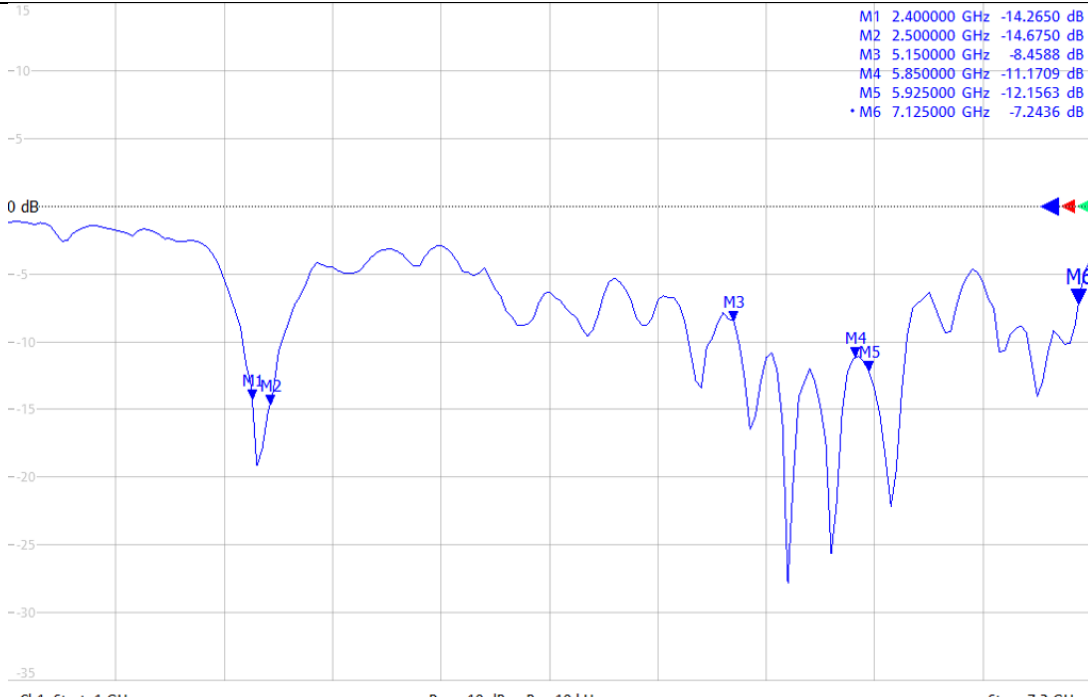
Frequency Band	MHz
WiFi	2400~2500MHz, 5150~5850MHz, 5925~7125MHz

4-2. Impedance

50 ohm nominal

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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:

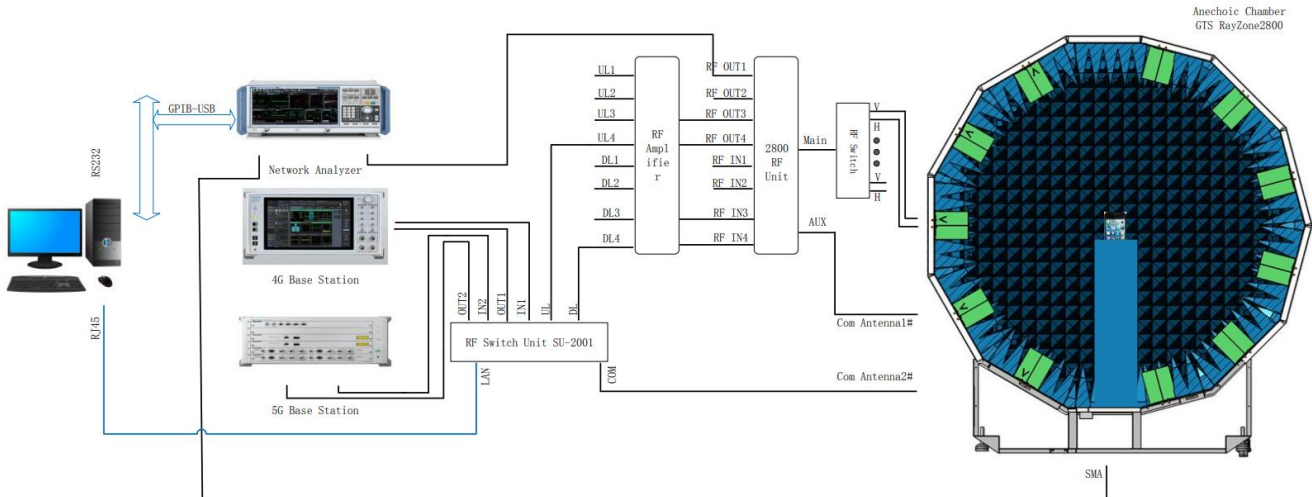
Microwave chamber, Network analyzer, and standard antenna.

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.



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.

4-4-2 Efficiency and Gain

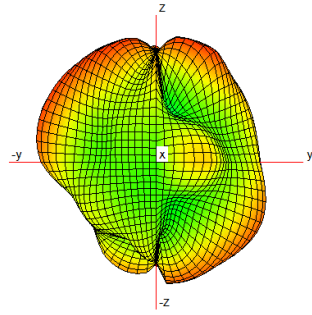
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Freq(MHz)	Efficiency_dB	Efficiency_Pcent	Gain
2400	-4.9	32.1	1.1
2450	-3.6	43.2	2.7
2500	-3.9	41.0	2.3
5150	-5.7	26.7	0.3
5250	-4.6	34.8	0.8
5350	-5.3	29.6	-0.8
5470	-4.9	32.6	0.4
5600	-5.5	28.4	0.6
5725	-5.8	26.3	1.2
5785	-5.3	29.7	1.6
5800	-5.4	29.1	1.5
5850	-5.4	28.7	1.5
5925	-5.7	27.0	1.4
6025	-5.6	27.7	0.0
6125	-4.9	32.4	1.6
6225	-6.1	24.7	0.5
6325	-5.8	26.1	0.4
6425	-6.9	20.3	-1.3
6525	-8.1	15.4	-1.9
6625	-6.8	21.0	-1.3
6725	-7.2	18.8	-1.9
6825	-6.2	24.0	-0.5
6925	-6.6	21.8	0.1
7025	-8.0	16.0	-2.7
7125	-9.2	12.0	-3.3

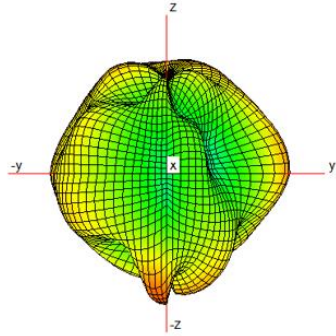
5. Antenna 3D Radiation Pattern:

2450MHZ

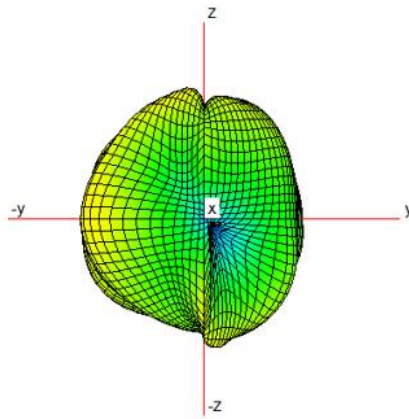
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5470MHZ



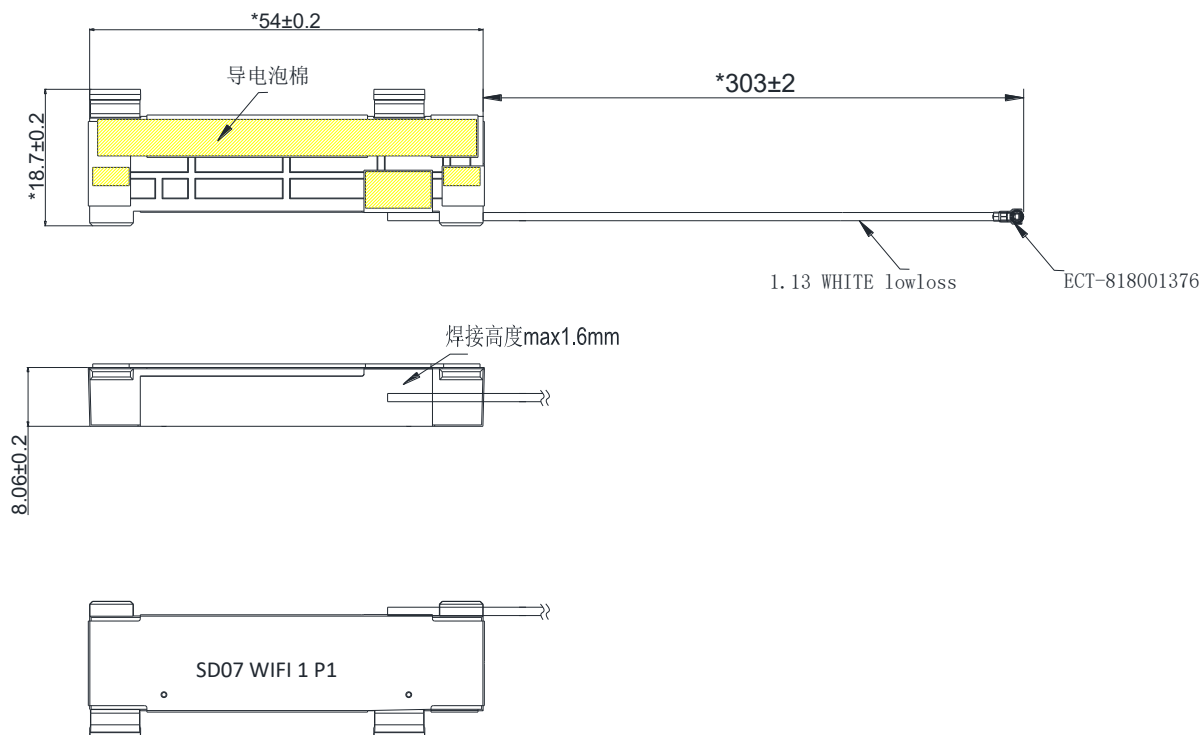
6525MHZ



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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