

WA-F-RFID-02-003 Specification

1. Explanation of part number :

WA F RFID 02 003
(1) (2) (3) (4) (5)

(1) Product Type: Wireless Antenna

(2) Material: FPC

(3) Frequency : 0.86 – 0.93 GHz

(4) Coaxial Cable Type : 02

(5) Suffix : 003

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 Halow model, and all characteristics were measured in the customer's machine. .

4-1. Frequency Band:

Frequency Band	GHz
Halow	0.86-0.93

4-2. Impedance

50 ohm nominal

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ANGLES = ± HOLEDIA = ±



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DESIGNED BY: 周振兴 APPROVED BY : 唐龙

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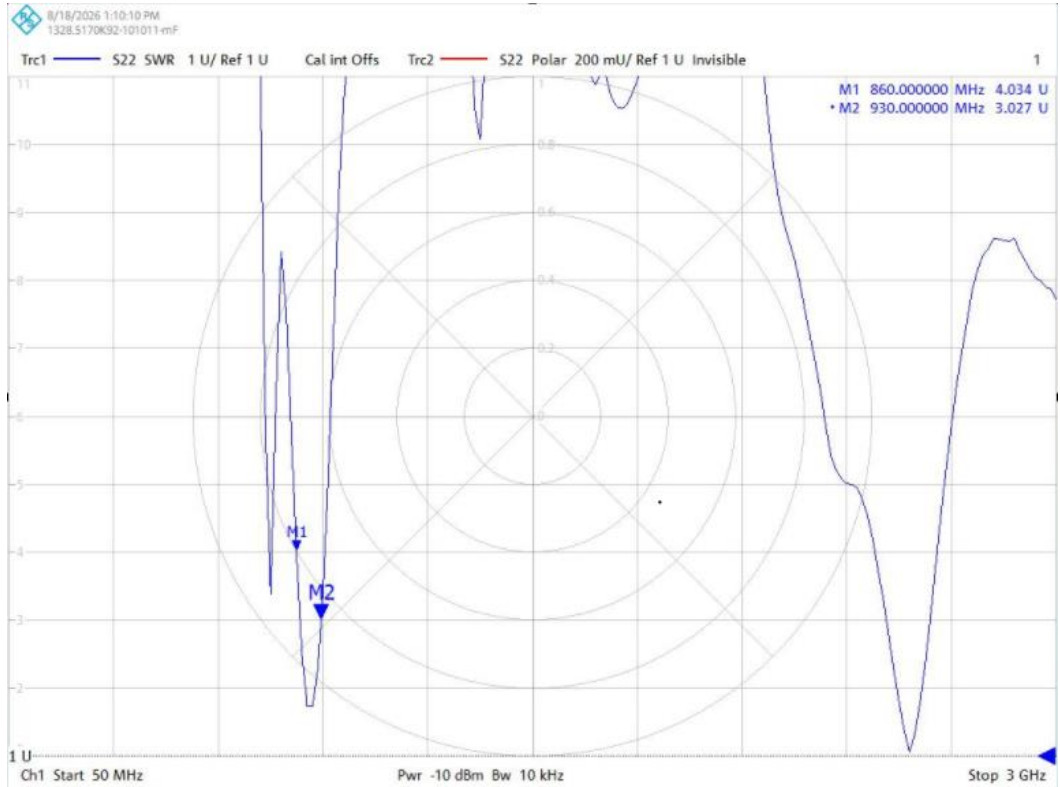
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4-3. Matching circuit

None

4-4. VSWR

Frequency Band	0.86	0.93
4-4-1. Typical Value:	≤ 4.5	≤ 3.5
4-4-2. Measuring Method	1. A 50Ωcoaxial cable is connected to the 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:

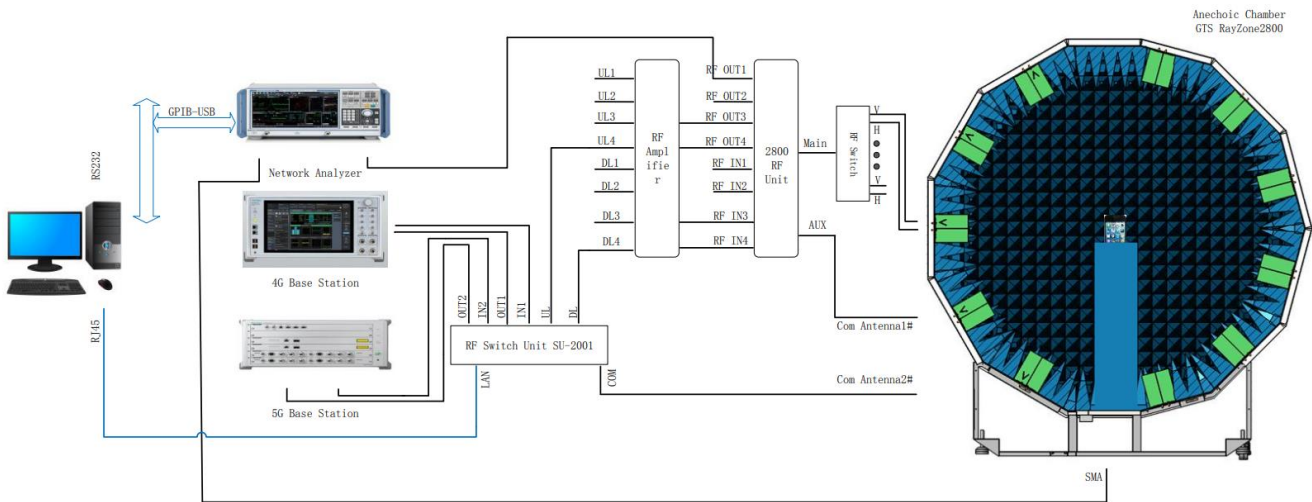
Microwave chamber, Network analyzer, and standard antenna.

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

Freq(MHz)	Efficiency_dB	Efficiency_Pcent	Gain
860	-5.6	27.4	-1.5
865	-5.3	29.3	-0.8
870	-5.2	30.5	-0.6
875	-4.9	32.7	-0.4
880	-4.7	33.8	-0.3
885	-4.7	34.2	0.2
890	-4.5	35.9	0.3
895	-4.3	37.6	0.5
900	-4.1	39.1	0.7
905	-4.2	38.3	0.5
910	-4.4	36.3	0.3
915	-4.7	34.1	0.0
920	-5.1	31.2	-0.4
925	-5.7	27.0	-1.0
930	-5.9	25.7	-1.5
AVG	-4.9	32.9	-0.3

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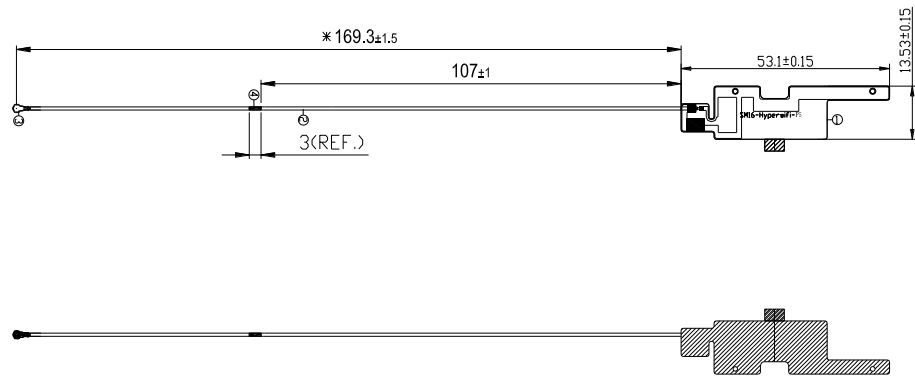
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5. Mechanical Specification: （“*”为重点检验尺寸）



4	Clip	1m	SUS304	1
3	CONNECTOR	62RC0000(P004)	Cu	1
2	CABLE	8BILLS Block	CU+PE	1
1	FPC	FPC 单面板 T012 1m 有以零件 0.5oz ED 附：表面黑色油墨，黄色印字，P00 铜金大小 0.03mm	P1+Cu	1
INDEX	PART No.	DESCRIPTION	MATERIAL	QTY

6.Physical photos:

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