



Yunge (Shenzhen) Communication Co., Ltd.

Antenna report

The Main Antenna Sample Confirmation

Document Number: SNW-QR-D-007/A.0

Customer Name Customer				
Project Name Project No.	WIFI antenna		date	2025-3-12
			Date	
Frequency Range		Remark	PCB	
		Notes		
	2.4MHz~2.5MHz 5100MHz~5900MHz			

Manufacturer: Uniform (Shenzhen) Communication Co., Ltd.

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1. Specification Overview

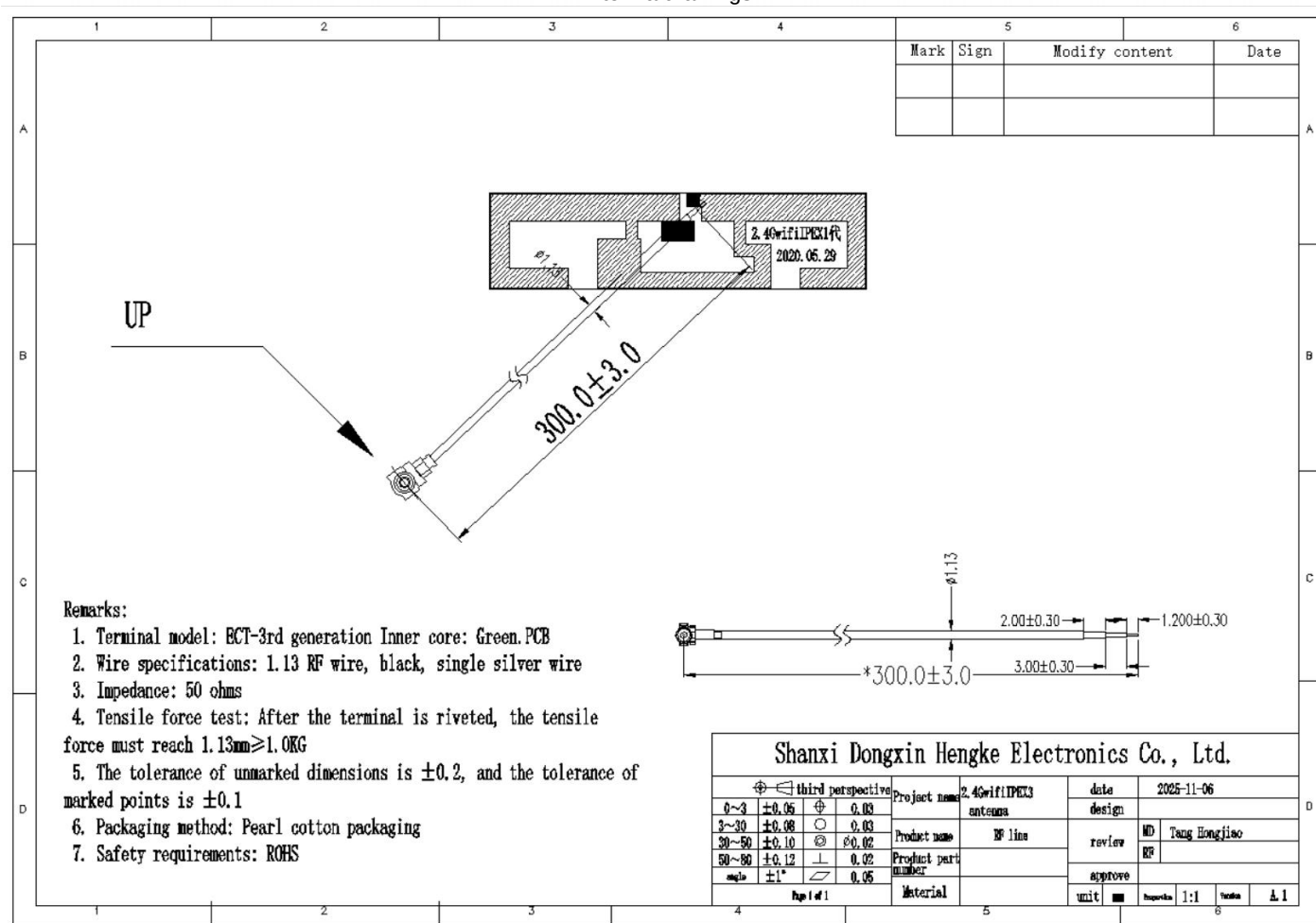
2. Antenna Appearance





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Antenna drawings



2.1. Antenna Frequency Band

Antenna
operating frequency

WIFI
2.4MHz~2.5MHz
5100MHz~5900MHz

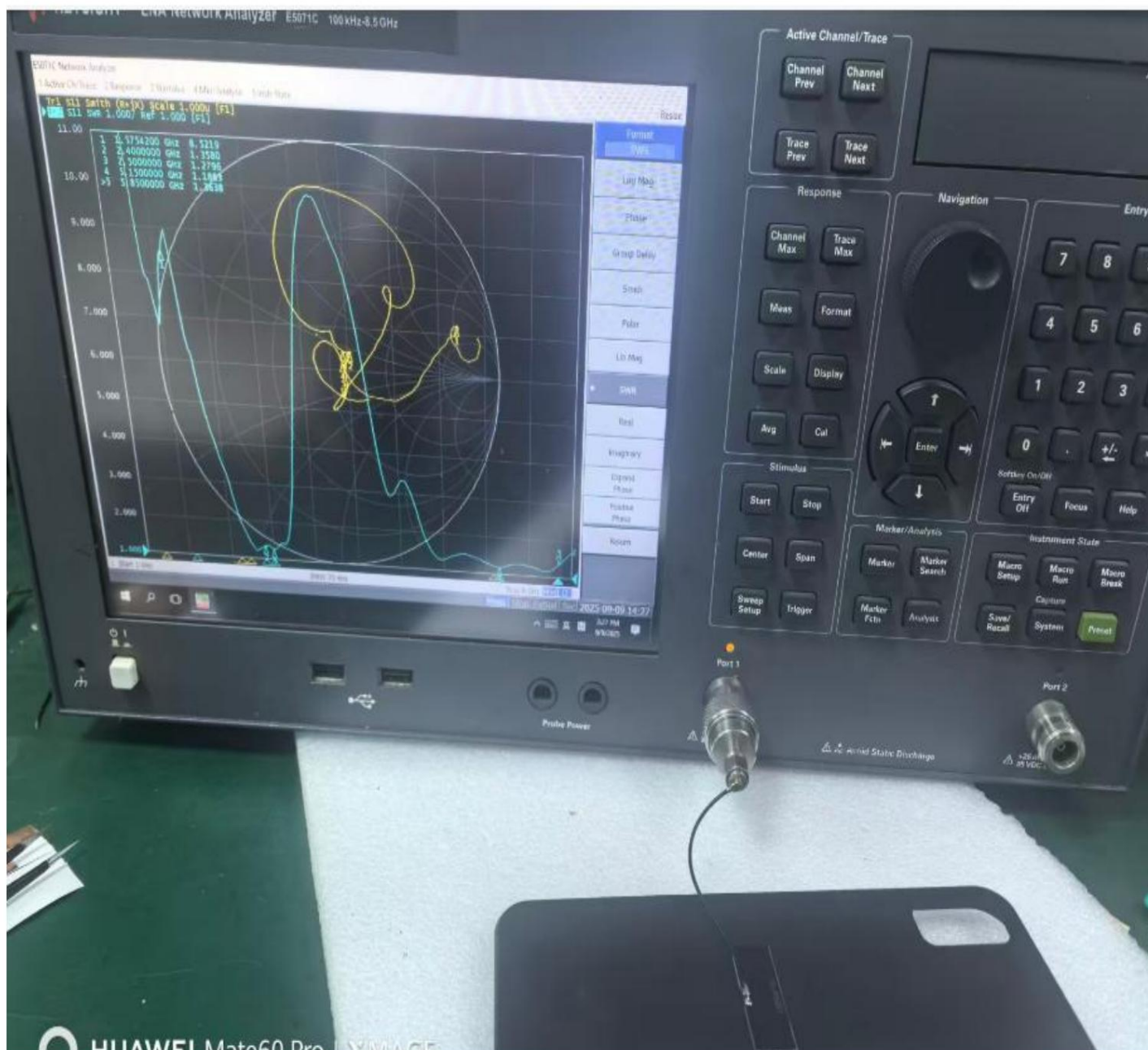
2.2. Matching Circuit

Element	Value
E1	0ÿ
E2	0ÿ
E3	NC
E4	0ÿ



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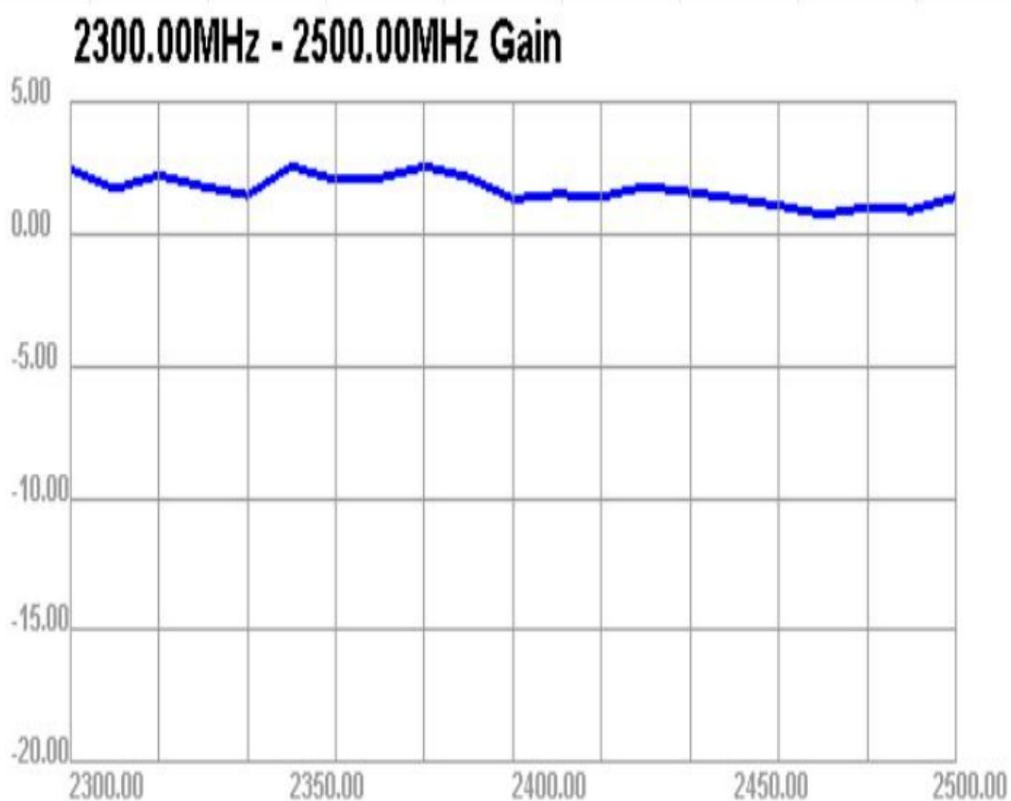
Antenna VSWR diagram Log mag+smith





WiFi 2.4 Antenna Efficiency/Gain

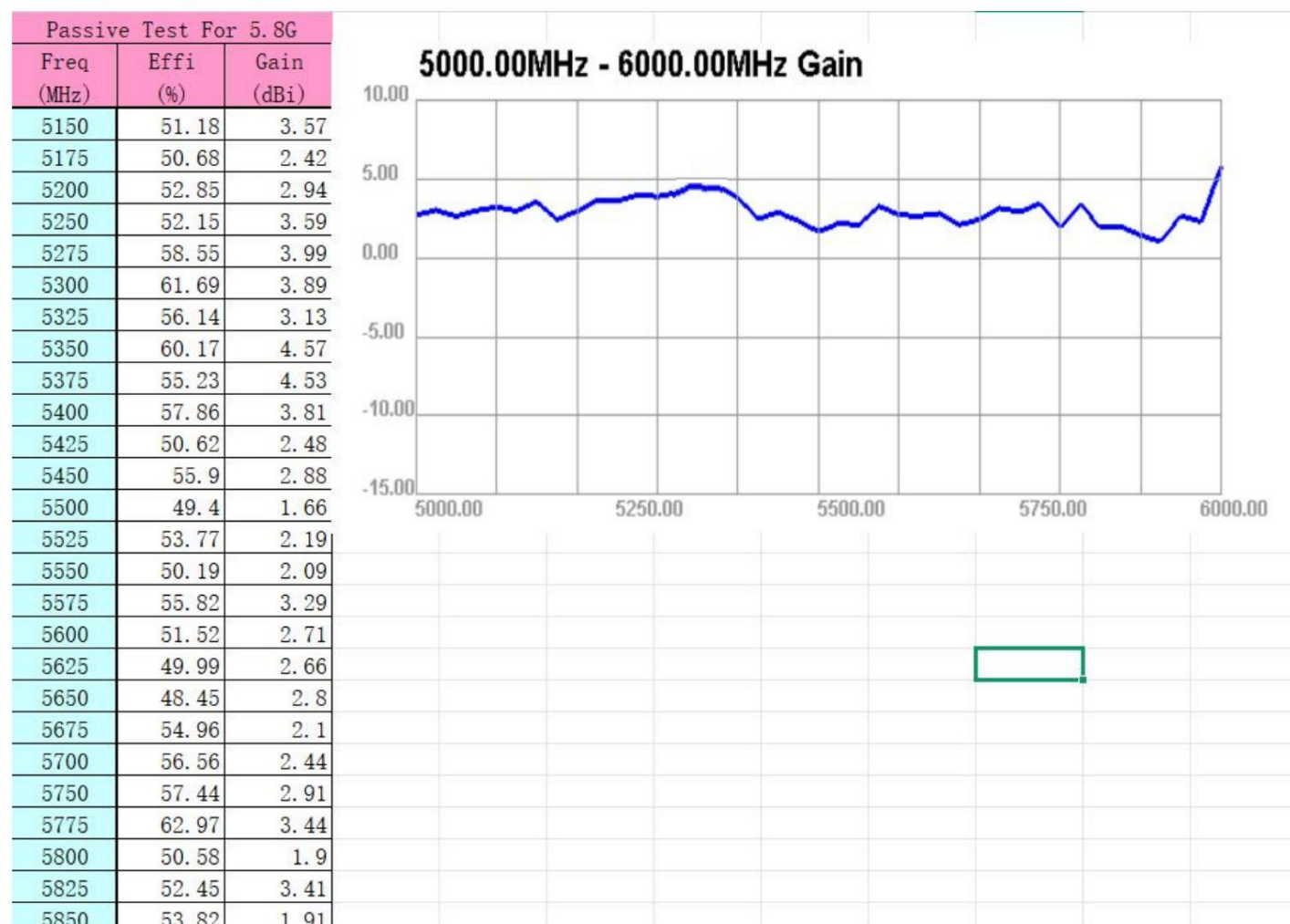
Passive Test For WIFI		
Freq (MHz)	Effi (%)	Gain (dBi)
2300	49.78	2.43
2310	44.76	1.69
2320	50.2	2.21
2330	48.96	1.79
2340	44.48	1.46
2350	55.81	2.56
2360	51.09	2.03
2370	53.93	2.11
2380	60.8	2.55
2390	61.11	2.14
2400	52.08	1.32
2410	48.67	1.49
2420	46.7	1.41
2430	48.26	1.78
2440	45.78	1.57
2450	43.77	1.33
2460	41.84	1.06
2470	38.67	0.72
2480	40.55	1.01
2490	38.58	0.9
2500	41.44	1.39



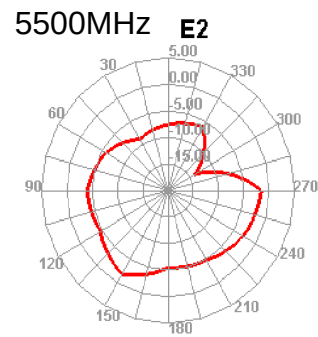
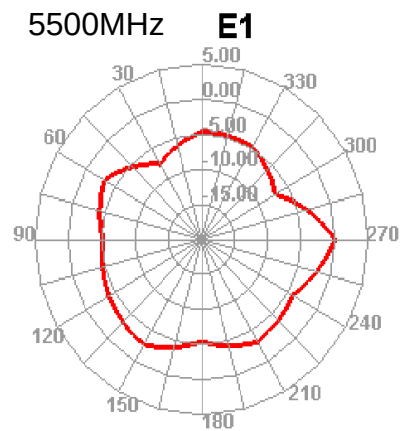
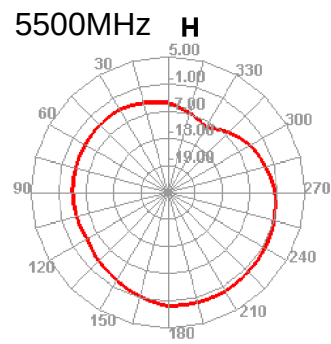
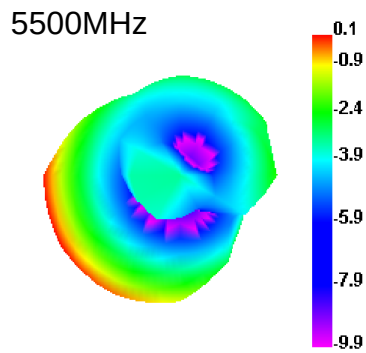
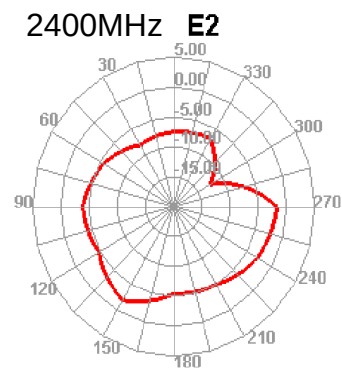
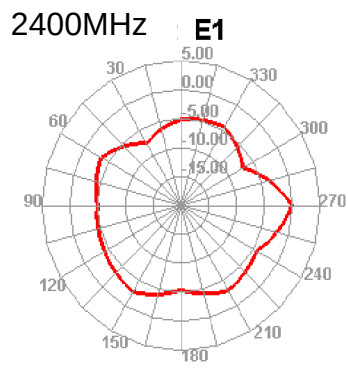
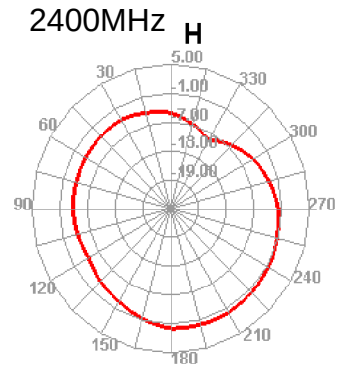
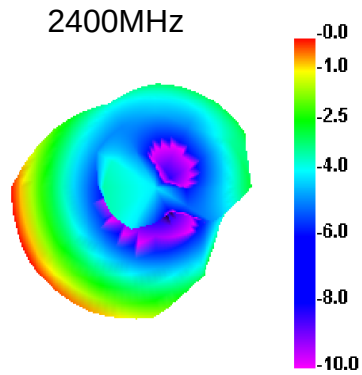


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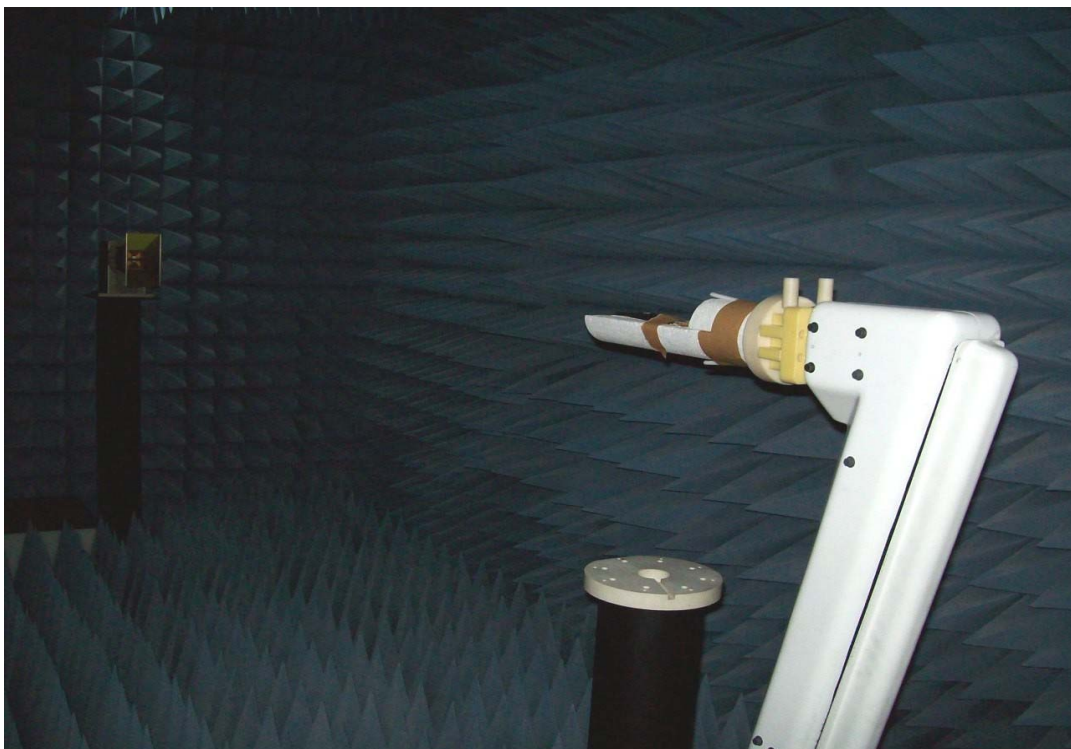
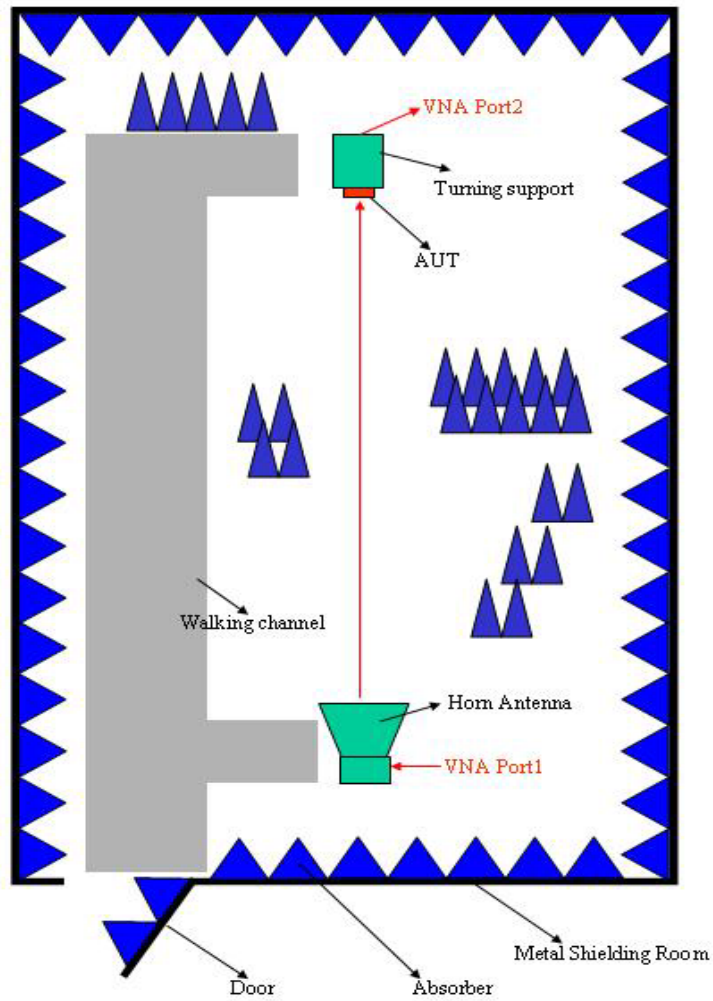
WiFi 5.8 Antenna Efficiency/Gain



Test pattern



The Environment of Antenna Radiation Pattern





PCB Shelf Life Instructions

I. Storage conditions: Temperature $21\pm4^{\circ}\text{C}$; Humidity $60\% \pm 10\%$

II. Factory Warranty

1. Appearance Guarantee: No oxidation will occur within 12 months under the original packaging storage conditions.

2. Functional Guarantee

A: Ensure good weld adhesion for one year.

B: Ensure good conductivity within two years.

3. Temperature resistance of the adhesive backing:

High temperature: $+80^{\circ}\text{C}$ Low temperature: -40°C

IV. Precautions for FPC Welding

1. FC itself is hygroscopic. It is recommended to preheat to 100°C and bake for 30 minutes before use. For three-layer boards (inclusive) and above, preheat to 100°C and bake for 120 minutes.

To allow for a few minutes to prevent the board from cracking due to rapid oxidation caused by moisture absorption during operation.

2. HOT BAR Assignment

A: When using FPC for hot pressing, CVI should be laid across the glass to avoid being suspended in mid-air, which could cause the copper to break when bent.

B: Avoid using FPC at sharp corners, as this can easily cause breakage.

3: SMT operation: The tin-plated parts need to be masked to prevent fogging during soldering.

4. Hand soldering: The soldering iron temperature should not exceed 350°C , and the soldering iron should not remain on the board for more than 3 seconds.