



Specifications approval Approval Sheet

Customer Name _____ **Exx** _____

(Customer Name)

Product Name _____ **X15CW-RS90WIFI ANT** _____

(Specification)

Customer Part Number _____

(Customer P/N)

Product Number _____

(O/I)

Sample delivery date _____ **2024-10-14** _____

(Date)

Frequency band	WIFI		
Version	A		
Radio Frequency	Chen Mushao	confirm	
structure	Yang Xuezhong		
Customer confirmation			
date			

Order

record

1. Project pictures

2. Test fixture

3. Matching circuit

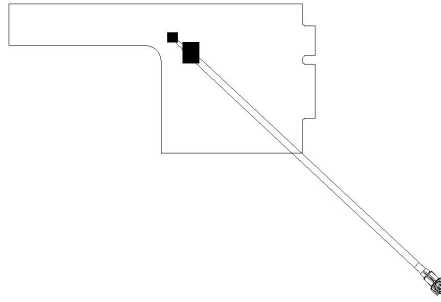
4. S11 Test electrical performance

4.1 S11 Test Method Specifications

4.2 S11 parameter images

5. Structural drawings

1. Project pictures (for reference only)

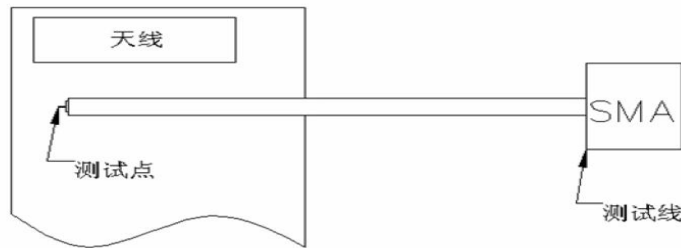


WIFI ANTENNA

2. Passive test

Purpose: To test the passive parameters of the antenna as accurately as possible.

Method: This fixture uses a 50-ohm coaxial cable, one end of which is connected to the test point at the rear end of the matching circuit (front end of the RF test hole) of the machine motherboard, and the other end is connected to the SMA connector. The details are as follows:

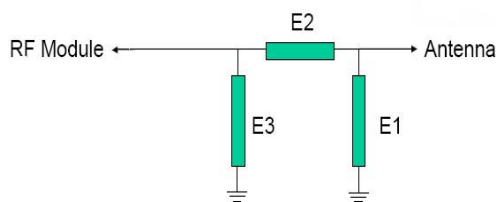


The following table is a test index for the performance of the X15CW-S90WIFI mass production antenna. Standard:

X15CW-S90WIFI Antenna				
	Frequency (MHz)	VSWR	Frequency (MHz)	VSWR
Frequency band	Transmitter		Receiver	
2.4G WIFI	2400-2550	≤3.0	2400-2550	≤3.0

3. Matching circuit

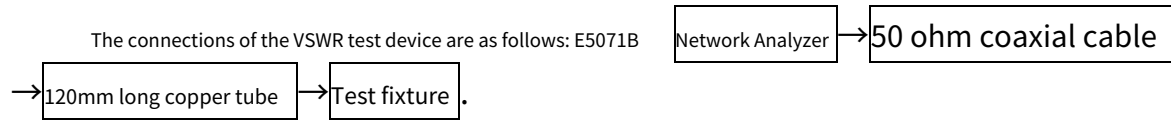
antenna (Match No Change)



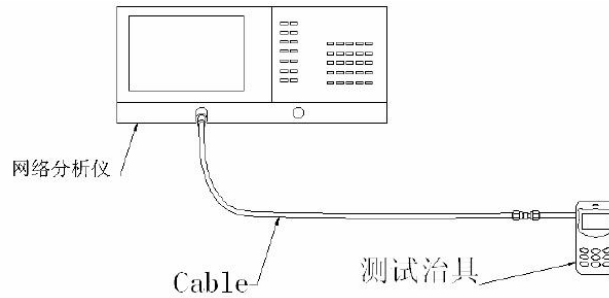
Element	Matching Value
E1(0402)	
E2(0402)	0 Ohm
E3(0402)	

4. S11 test

4.1 S11 Test Method Specifications

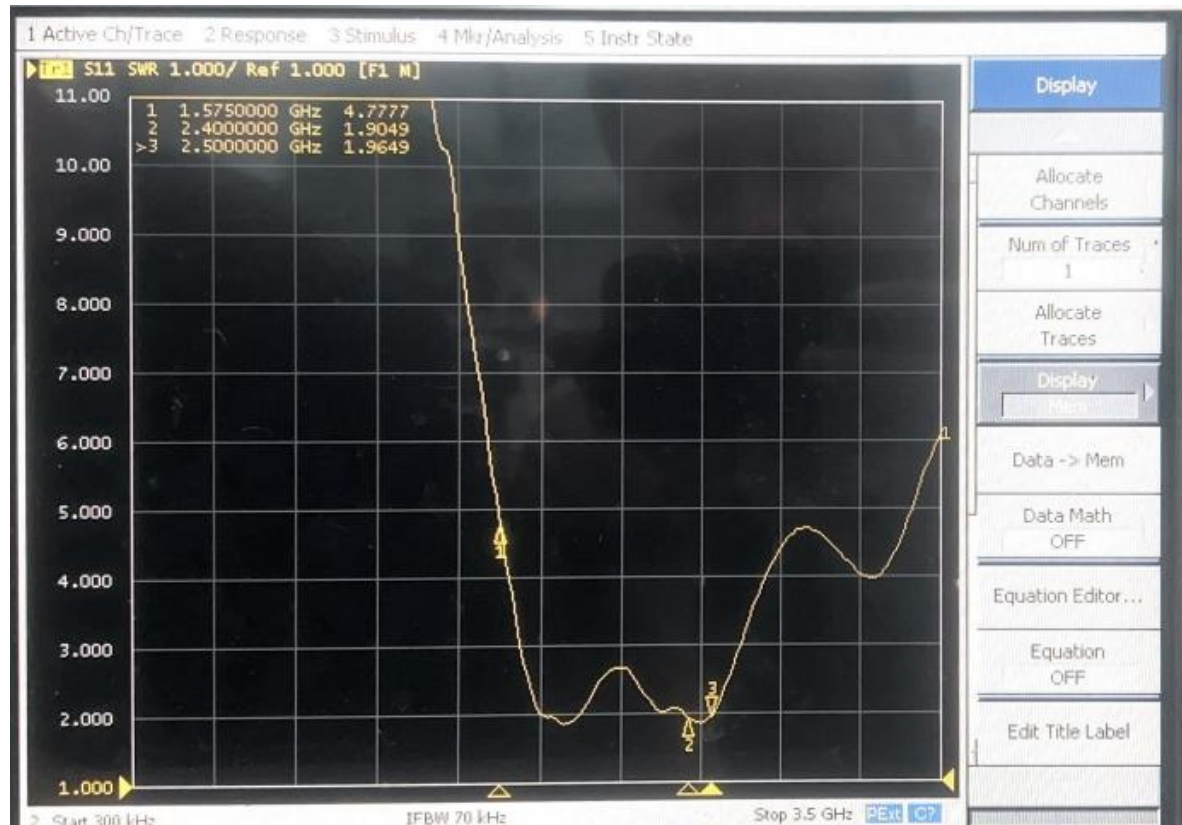


Processing of the test fixture: Use a hard cable to lead out the SMA-J connector from the 50 ohm test point of the antenna on the mobile phone PCB, connect it to the copper tube with a choke, and then connect other devices in turn.



Test diagram

S11 Passive Standing Wave Diagram

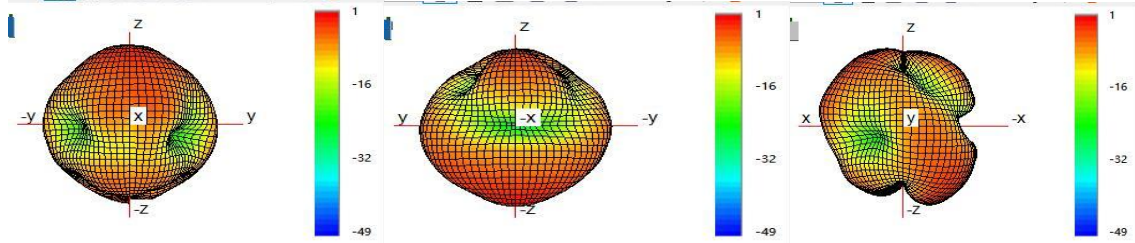


2.4WIFI Efficiency/Gain

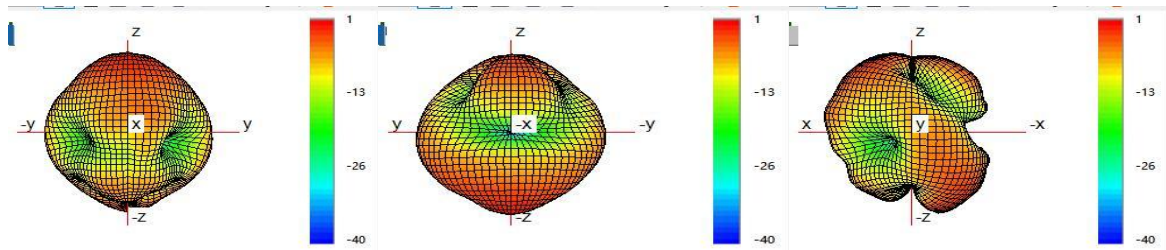
WiFi		
Freq	Effi	Gain
(MHz)	(%)	(DBi)
2400	33.0	0.14
2410	34.13	0.25
2420	36.11	0.35
2430	35.85	0.43
2440	34.32	0.37
2450	35.33	0.46
2460	36.35	0.58
2470	36.30	0.58
2480	36.05	0.55
2490	34.77	0.55
2500	35.27	0.65

Antenna pattern

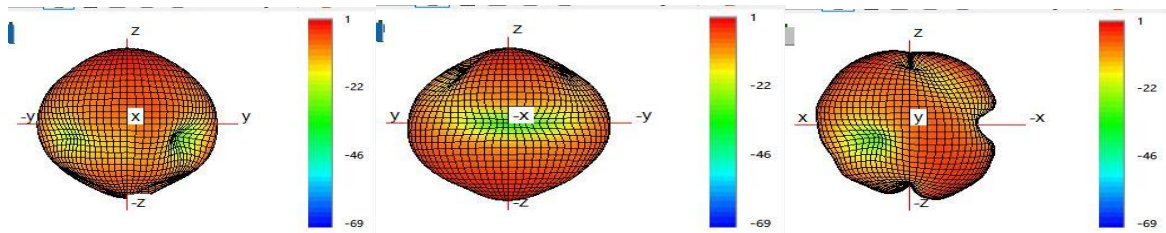
2.4G

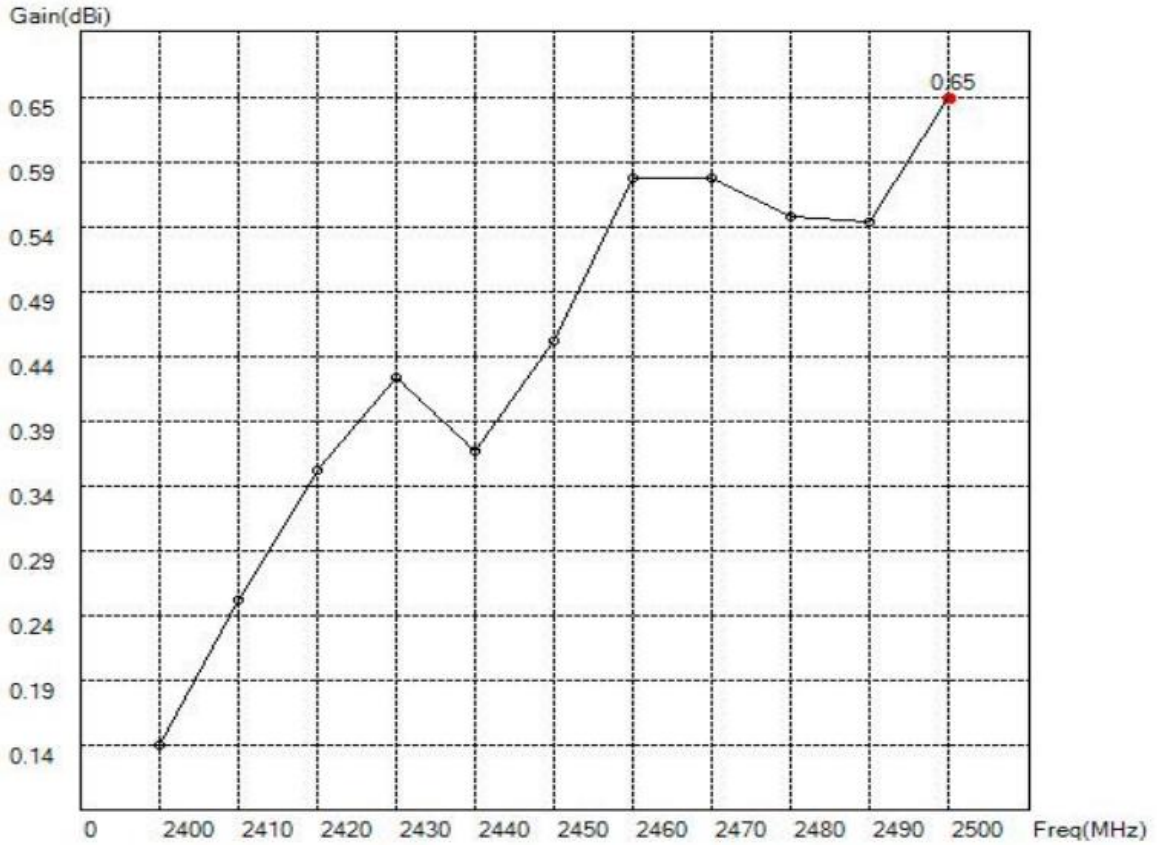


2.45G:



2.5G:





5: Structural drawings

