

1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the program. We test the antenna with the latest version handset. And it seems to be acceptable.

2 General Description

2.1 Components/Part revisions

VSWR: Voltage Standing Wave Rate.

3 Mechanical Description

4 Electrical Performance

4.1 Set-up

4.1.1 VSWR

VSWR measurements (S11) were performed using an Agilent 8753D Network Analyzer and the previously described test fixture. Coaxial chokes were used to mitigate surface currents on the outside of the cabling. The testing was performed in free space.

4.1.2 Gain & Radiation Patterns

The gain of the antenna was measured in the Lxc's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than -30 dB reflectivity from 800 MHz through 3 GHz and an 18" diameter spherical quiet zone. The measurement results are calibrated using both dipole and leaky wave horn standards.

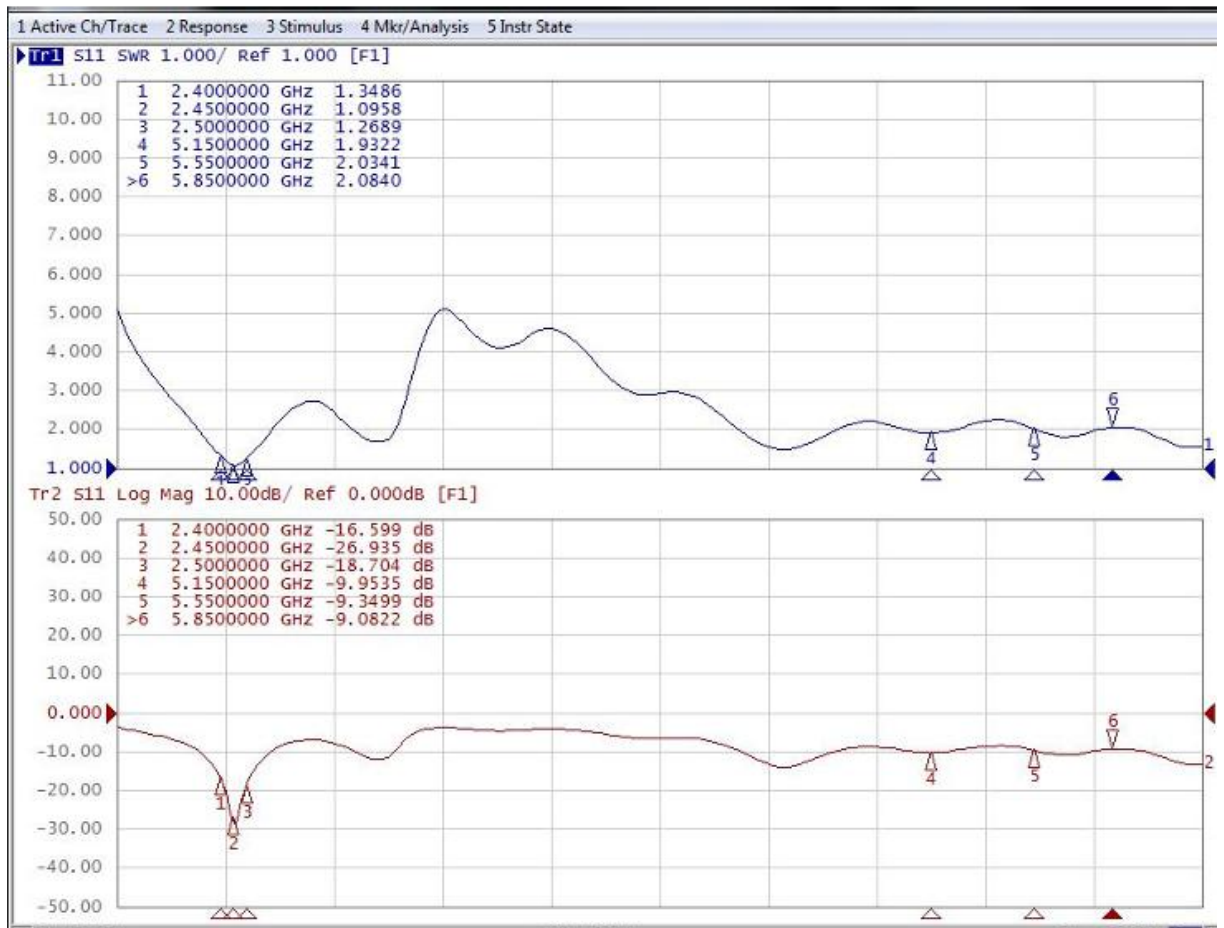
4.1.3 Matching Circuit Description

4.2 Measurement Data

4.2.1 Active result (WIFI)

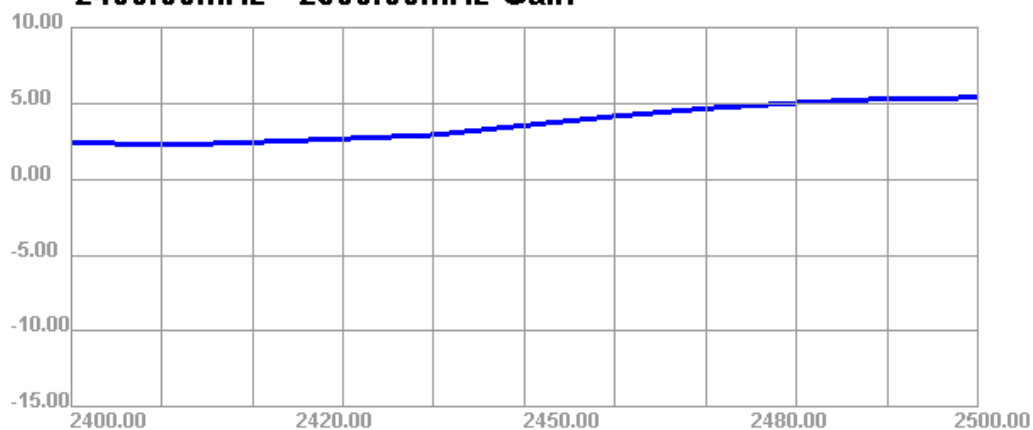


Antenna matching remains unchanged.

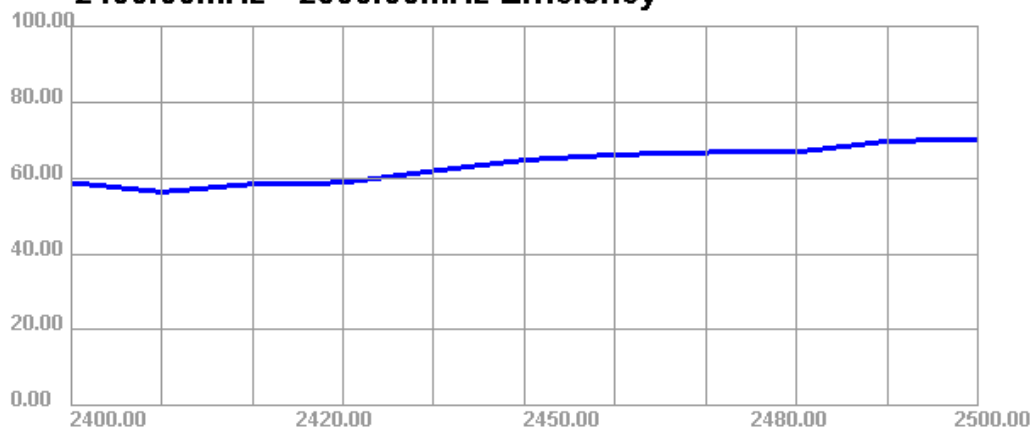


Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400	54.39	1.3
2410	56.89	1.55
2420	54.97	1.4
2430	55.4	1.41
2440	60.68	1.82
2450	61.05	1.84
2460	65.18	2.19
2470	65.43	2.26
2480	68.36	2.47
2490	71.7	2.79
2500	72.33	2.83

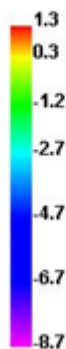
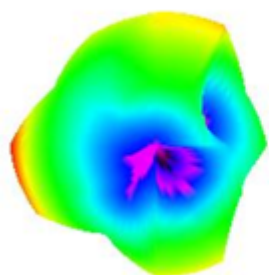
2400.00MHz - 2500.00MHz Gain



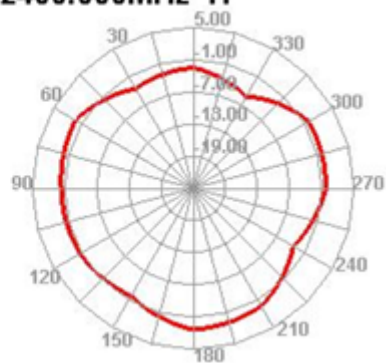
2400.00MHz - 2500.00MHz Efficiency



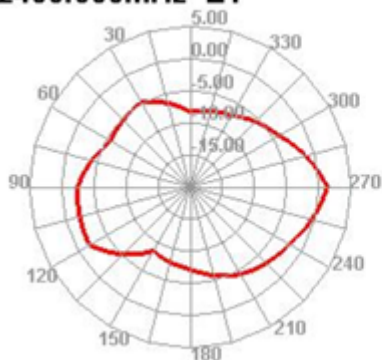
2400.000MHz



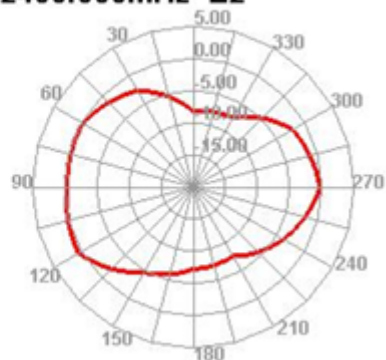
2400.000MHz H



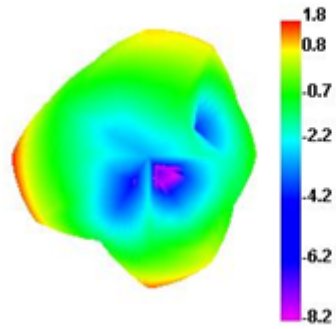
2400.000MHz E1



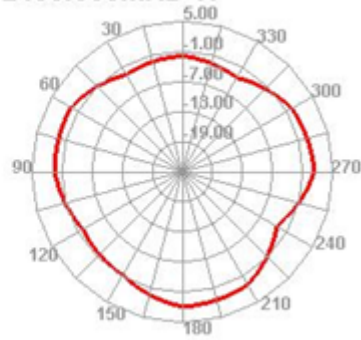
2400.000MHz E2



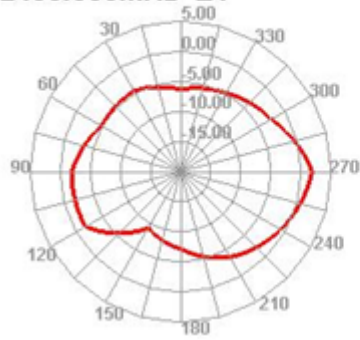
2450.000MHz



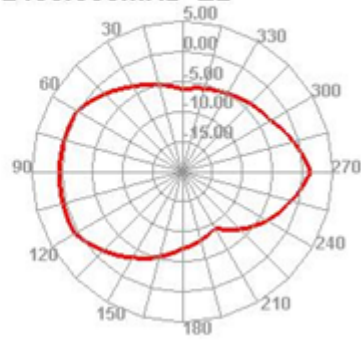
2450.000MHz H



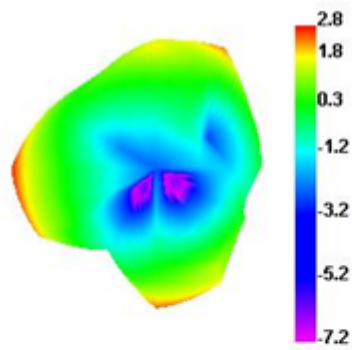
2450.000MHz E1



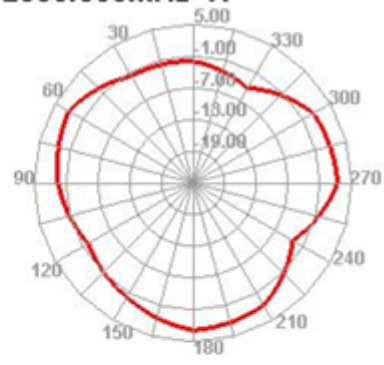
2450.000MHz E2



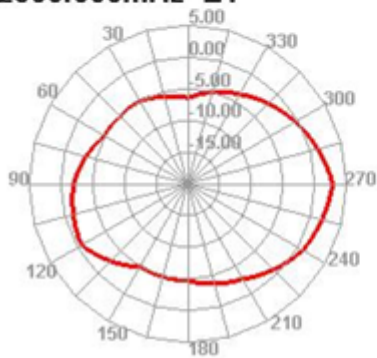
2500.000MHz



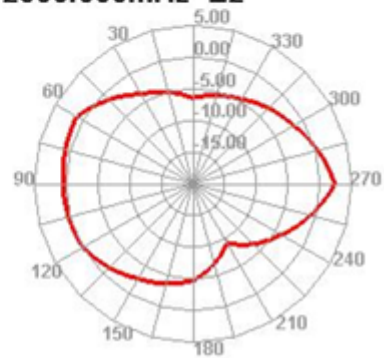
2500.000MHz H



2500.000MHz E1

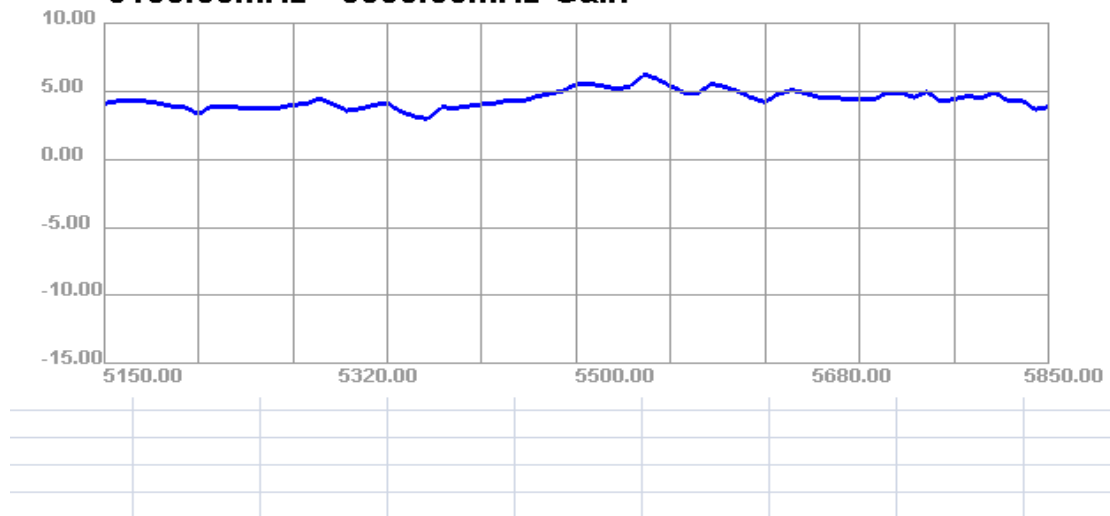


2500.000MHz E2

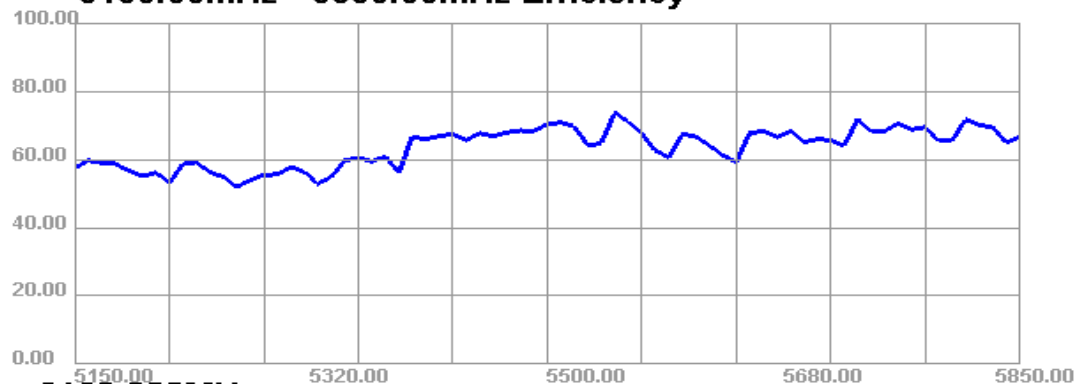


Freq	Effi	Gain
(MHz)	(%)	(dBi)
5150	51.44	2.94
5350	60.22	3.12
5550	74.24	3.25
5650	61.95	3.0
5850	67.73	4.04

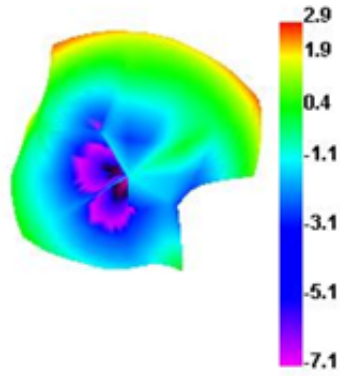
5150.00MHz - 5850.00MHz Gain



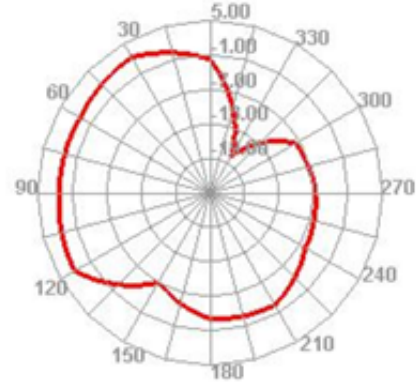
5150.00MHz - 5850.00MHz Efficiency



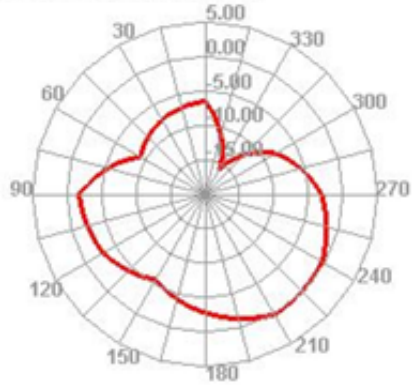
5150.000MHz



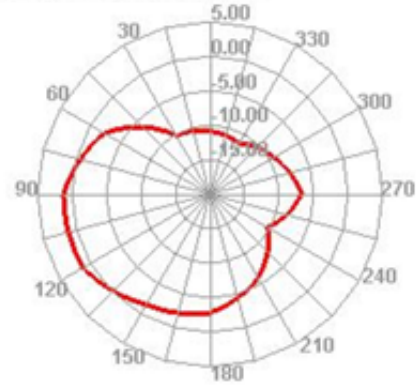
5150.000MHz H



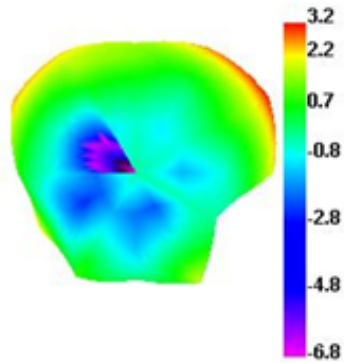
5150.000MHz E1



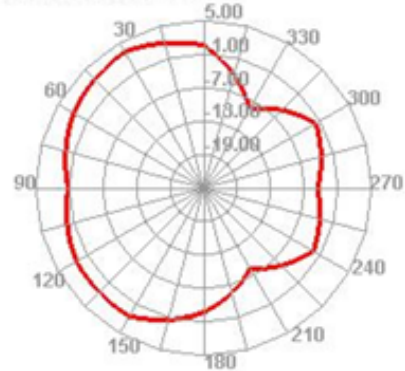
5150.000MHz E2



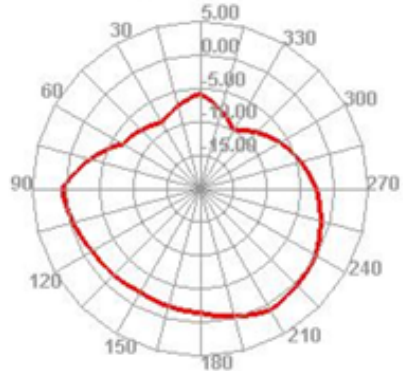
5500.000MHz



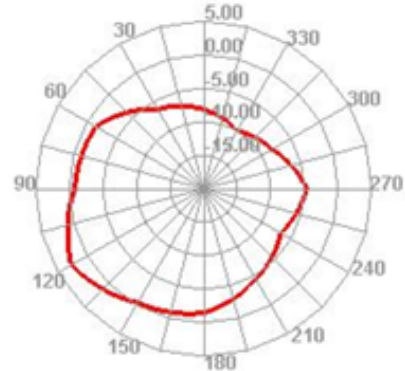
5500.000MHz H



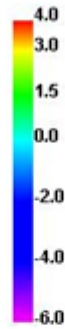
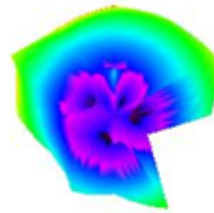
5500.000MHz E1



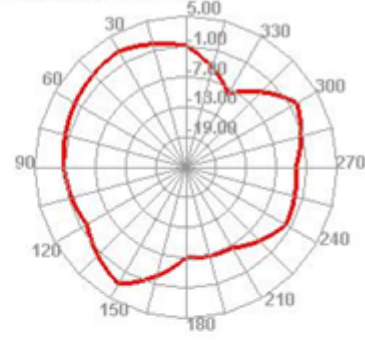
5500.000MHz E2



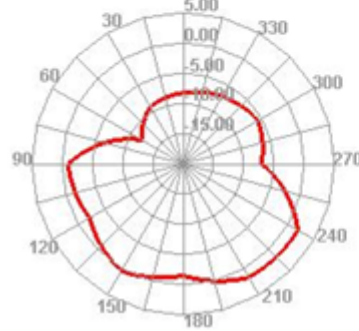
5850.000MHz



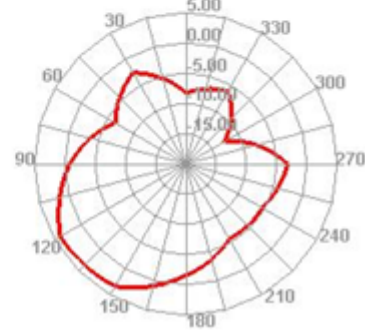
5850.000MHz H



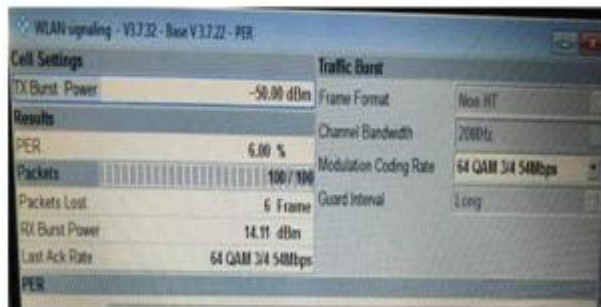
5850.000MHz E1



5850.000MHz E2



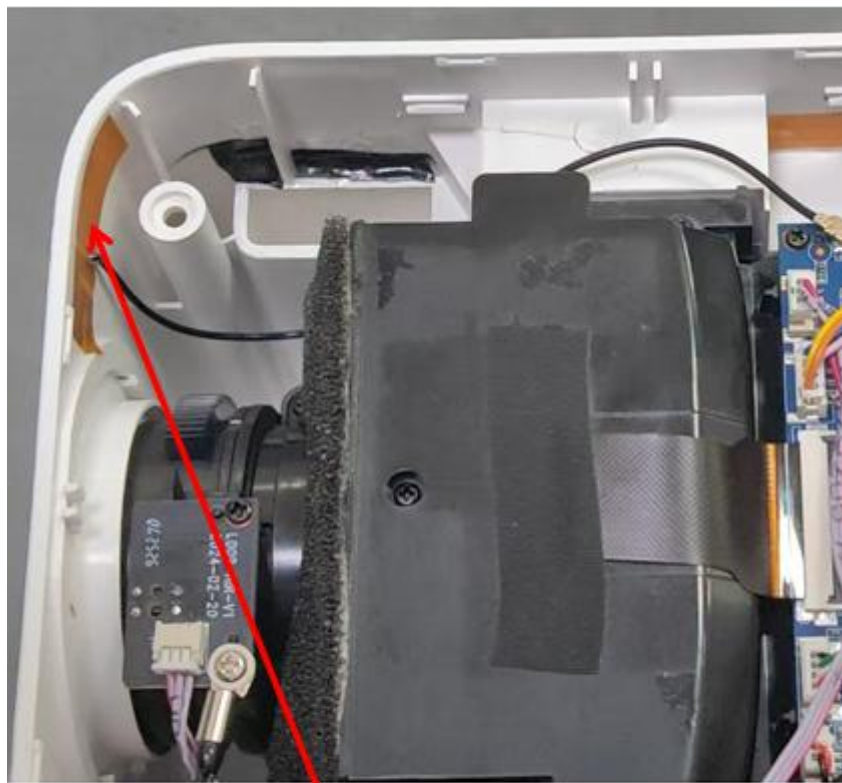
WiFi(2.4G/B)	CH	TRP-(11M)	TIS-(11M)	WiFi(5G/A)	CH	TRP-(54M)	TIS-(54M)
	1	16.6			36	13.8	
	6	16.4			149	17.5	
	11	16.0	-73.6		165	17.3	-73.0



Module A Channel 36 Conducted Data: 14.11 dB

Module A-165 channel conducted data: 18.14 dB

Summary: The conducted power for the 5G Channel 36 is on the low side.



Install the Wi-Fi antenna according to the diagram.

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7 Reliability tests

7.1 Test content

No	试验项目	试验方法	判定基准
1	盐水喷雾试验	把盐浓度 5%的溶液喷雾 48HR	不能有变色，歪（变形）脱落等的缺点 腐蚀面积不能过大

7.2 Test results

NO	样品数	试验期间	实验结果	备注
1	50	24 小时	OK	技术等级为 9 级 腐蚀<0.4mm
2	50	48 小时	OK	技术等级为 9 级 腐蚀<0.4mm

8 Conclusion

From the above test results, we can know the electrical performance of the antenna is seems good.