



深圳市天威讯无线技术有限公司

Shenzhen Tianweixun Wireless Technology Co., Ltd.

天线设计与数据报告

● ○ customer name: Shenzhen ATS Electronics Technology Co.,

● ○ Ltd.

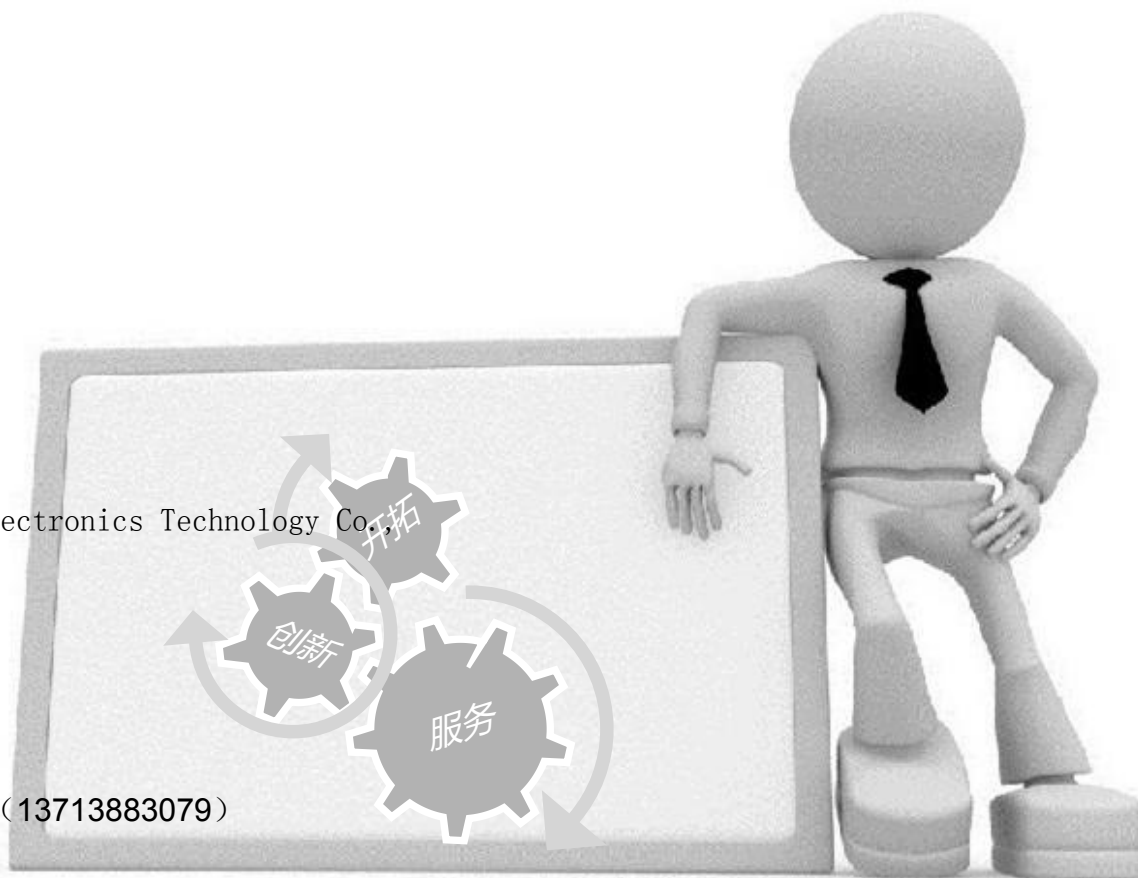
● ○ project name: M2-2

● ○ frequency band: WIFI2.4G/5G

● ○ R&D Engineering: Liaoxianming (13713883079)

Completion Date: 2022/12/6日

深圳市天威讯无线技术有限公司专用资料，未经本公司同意不允许透露给公司或个人。





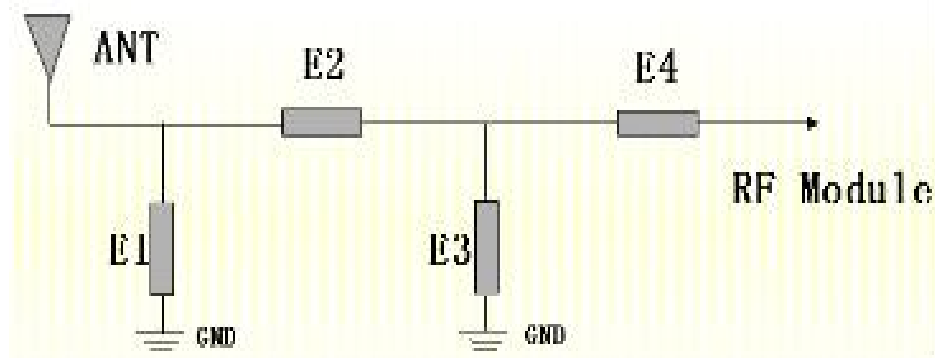
M2-2

Antenna circuit matching description



天线电路匹配说明 Antenna circuit matching description

Element	
E1(0201)	不变
E2(0201)	不变
E3(0201)	不变
E4(0201)	不变



Our company will debug the matching circuit according to the customer's mobile phone antenna needs;

(The matching circuit must be adjustable)

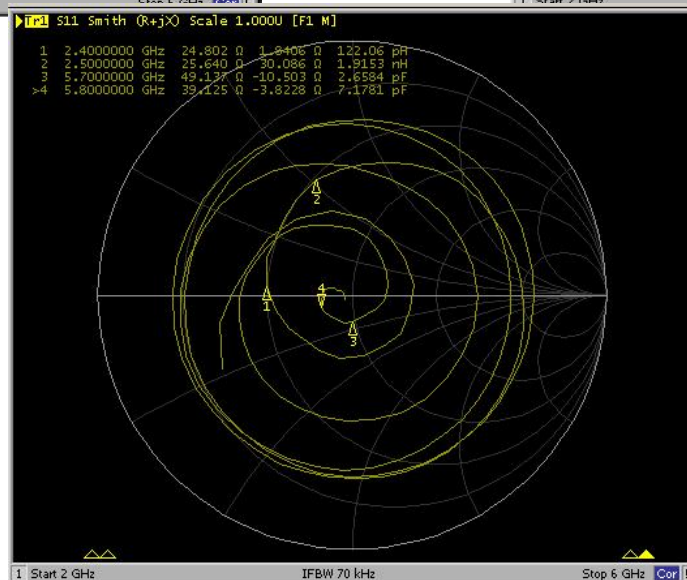
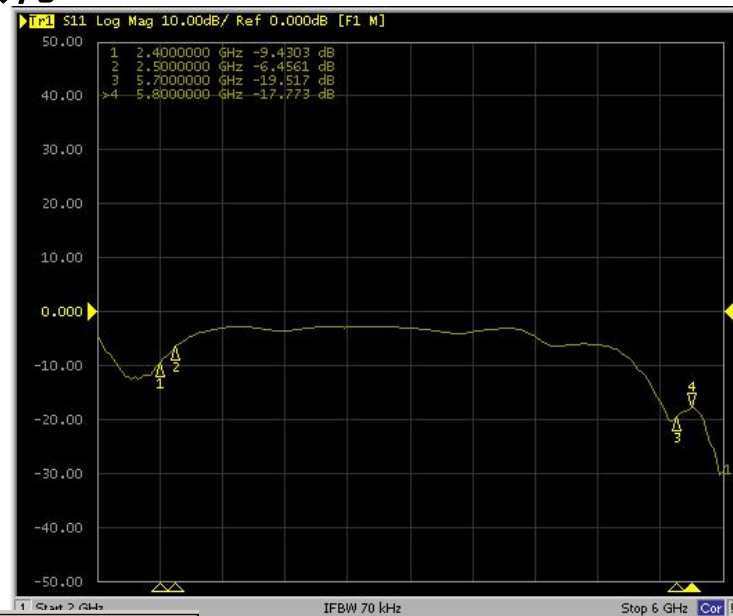
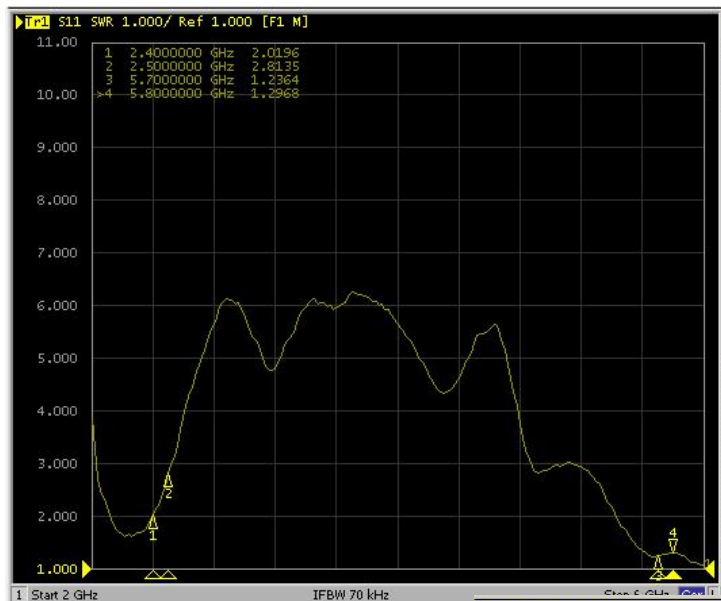


Main antenna passive standing wave diagram : 2.4-5G



电压驻波VSWR

回波损耗Return loss



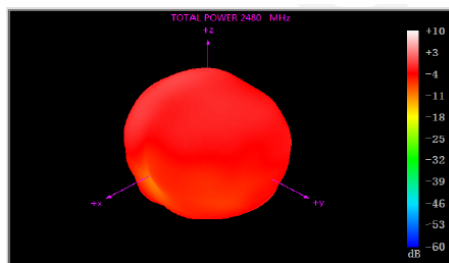
史密斯圆图
(Smith)



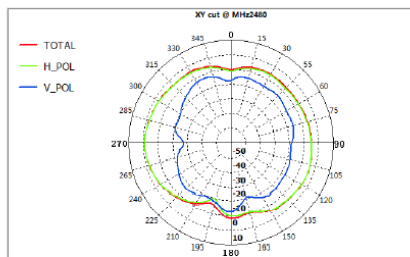
Main antenna passive efficiency : 2.4G-5G-3D-efficiency/gain



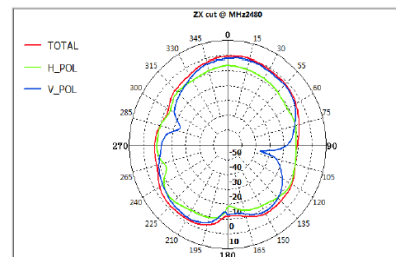
Passive Test	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
2.4GHz	Effi(%)	50.71	53.03	53.58	54.57	56.24	56.11	57.12	58.21	59.29	58.70	59.57
	Gain(dBi)	2.24	2.36	2.40	2.28	2.38	2.42	2.38	2.39	2.42	2.32	2.39



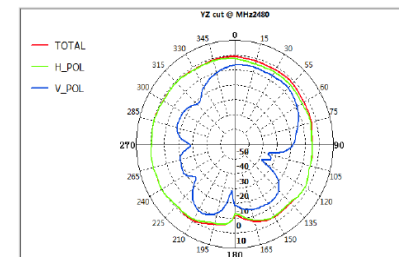
3D-plane@2.48GHz



2D-plane XOY @2.48GHz



2D-plane XOZ@2.48GHz

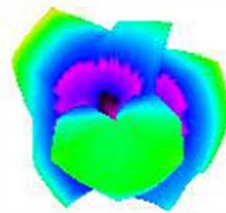


2D-plane YOZ @2.48GHz

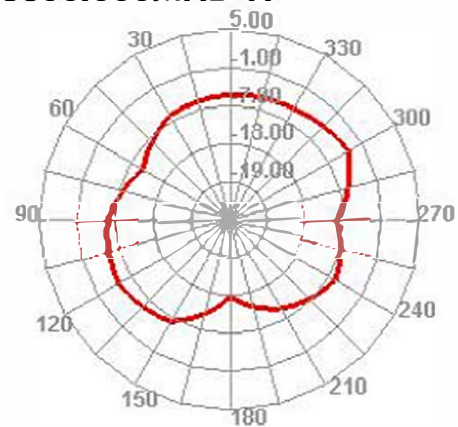
Passive Test	Freq(MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
WIFI	Effi(%)	65.42	64.86	61.34	63.49	65.85	62.95	62.64	64.74	64.41	62.95	62.57	63.05	64.52	64.46	61.54
5G	Gain(dBi)	2.65	2.50	2.35	2.69	2.56	2.53	2.35	2.56	2.51	2.47	2.51	2.44	2.54	2.69	2.53



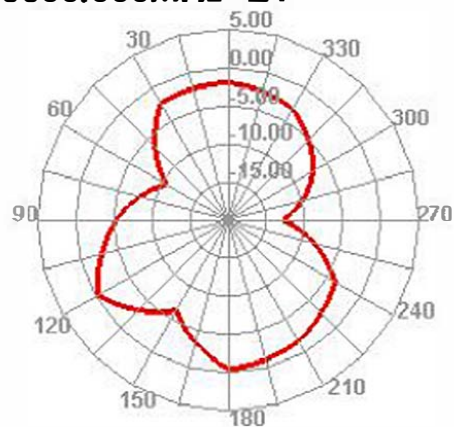
5300.000MHz



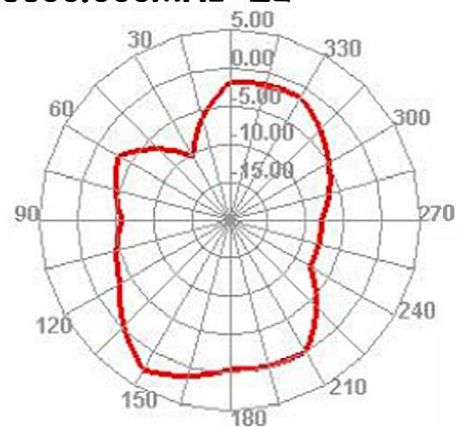
5300.000MHz H



5300.000MHz E1



5300.000MHz E2





Antenna Performance Table				
		Channel No.	TRP (dBm)	TIS (dBm)
WiFi	2.4G	1	15.4	-76.4
		6	15.4	-76.5
		11	15.6	-76.3
	5.8G	36	10.2	-69.2
		149	11.8	-69.4
		165	11.5	-70.5

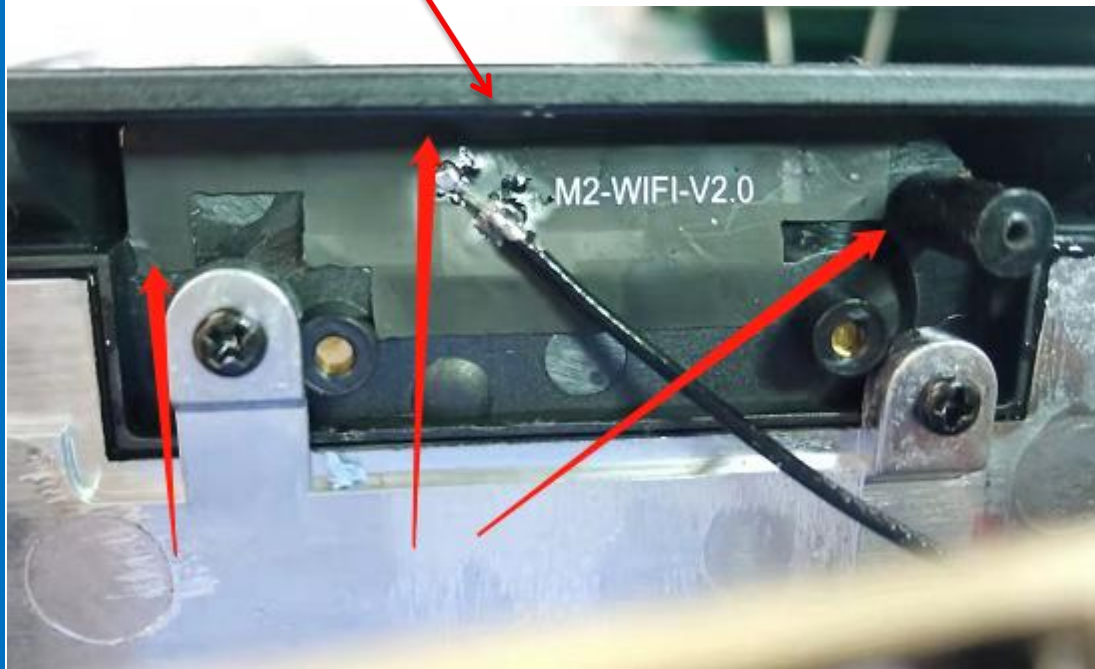


Environmental treatment



1、 Attach the antenna as shown in the picture.

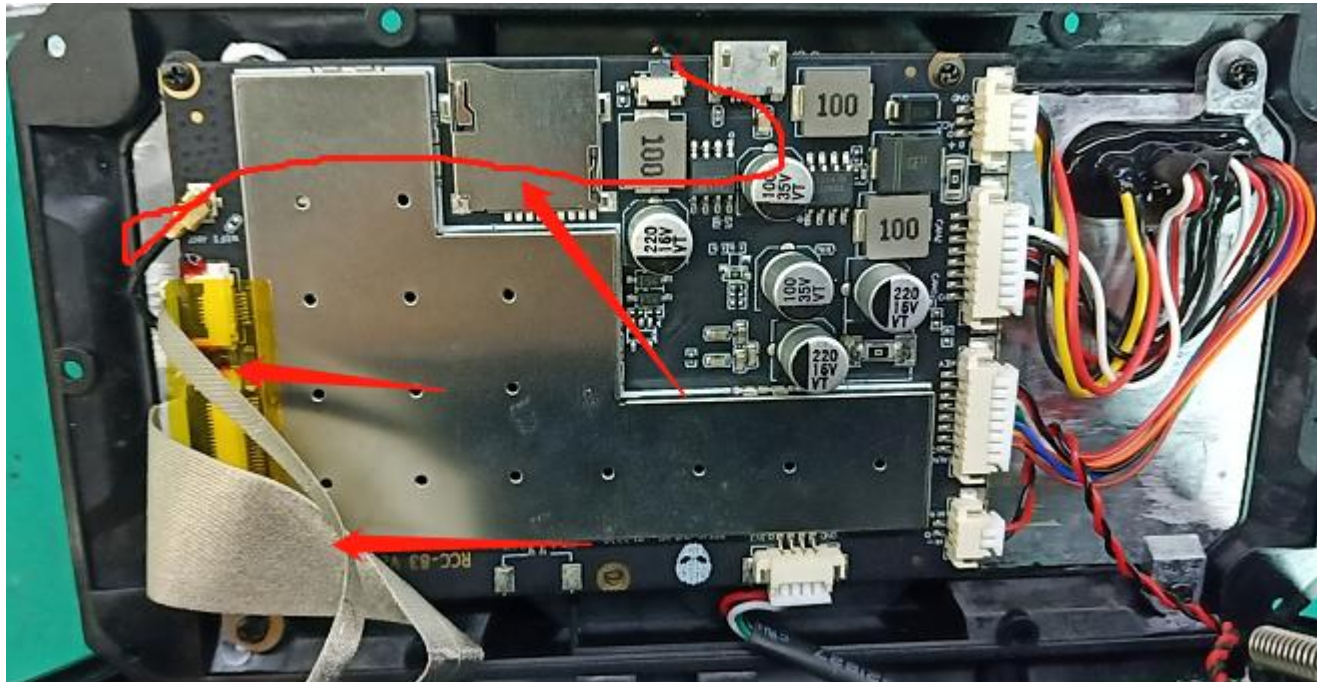
2、 Attach the coaxial cable to fix the placement path as shown in the figure.



Environmental treatment



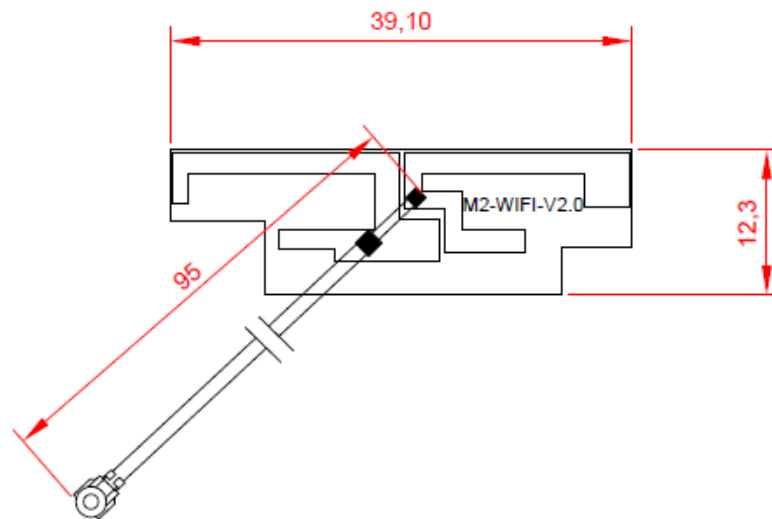
3、 Fix the placement path according to the coaxial line as shown in the figure.



4、 Two pieces of FPC package conductive cloth shielding treatment as shown in the figure



Antenna size





感谢您的耐心阅读！



如有疑问 请联系我们！

日常服务时间：周一至周五 9:00-18:00 周六 9:00-12:00

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传 真：0755 - 85268343

网址：www.tianweixun.com