



SPECIFICATIONS FOR APPROVAL

Customer Name: 吉祥星

Product Name: WIFI (2G+5G)_MAIN_ANT

Product Model: R1529

Part Number: LJF02-230210001M-R0A

Write By : 李明进

Issued Date: 2023/2/10

CUSTOMER				
ENGINEER R&D DEPT	BUSSINESS DEPT	APPROVED BY	DATE	Edition/Part number

LEJIN				
R&D DEPT	ENGINEER R&D DEPT	APPROVAL	DATE	Edition/Part number
ECN/ECR				



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Electrical Characteristics

Frequency	VSWR	Efficiency	Impedance	Polarization	Gain
2400 MHz ~2500 MHz	<2	>35%	50 Ohm	Linear	≥ 1 DB
5100MHZ--5900 MHZ	<2.5	>40%	50 Ohm	Linear	≥ 1 DB

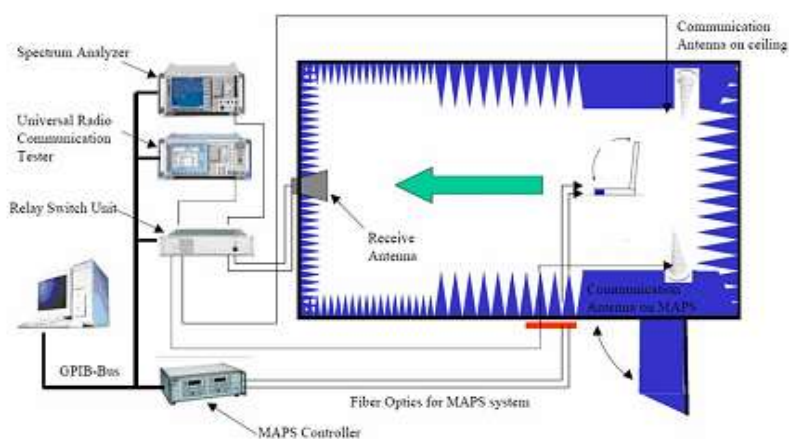
Material & Mechanical Characteristics

Environmental

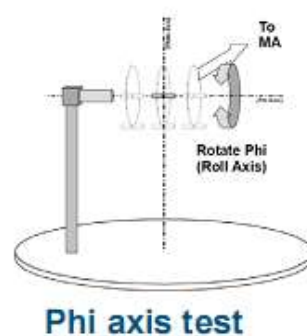
Material of Radiator	Cable Type	Connector Type	Dimension	Operation Temperature	Storage Temperature
FPC black/YELLOW	113	KCC451		- 20 °C ~ + 50 °C	- 30 °C ~ + 80 °C

Test Equipment & Conditions

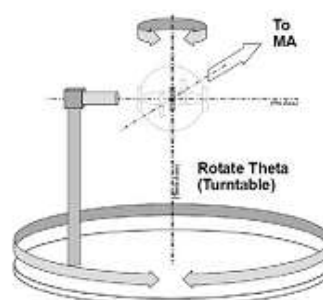
1. Network Analyzers :Agilent 8753SE 5071C
2. Communications Test Set:Agilent E5515C/CMW500
3. 3D Chamber Test System(ETS743)



(Testing by 3D anechoic chamber)

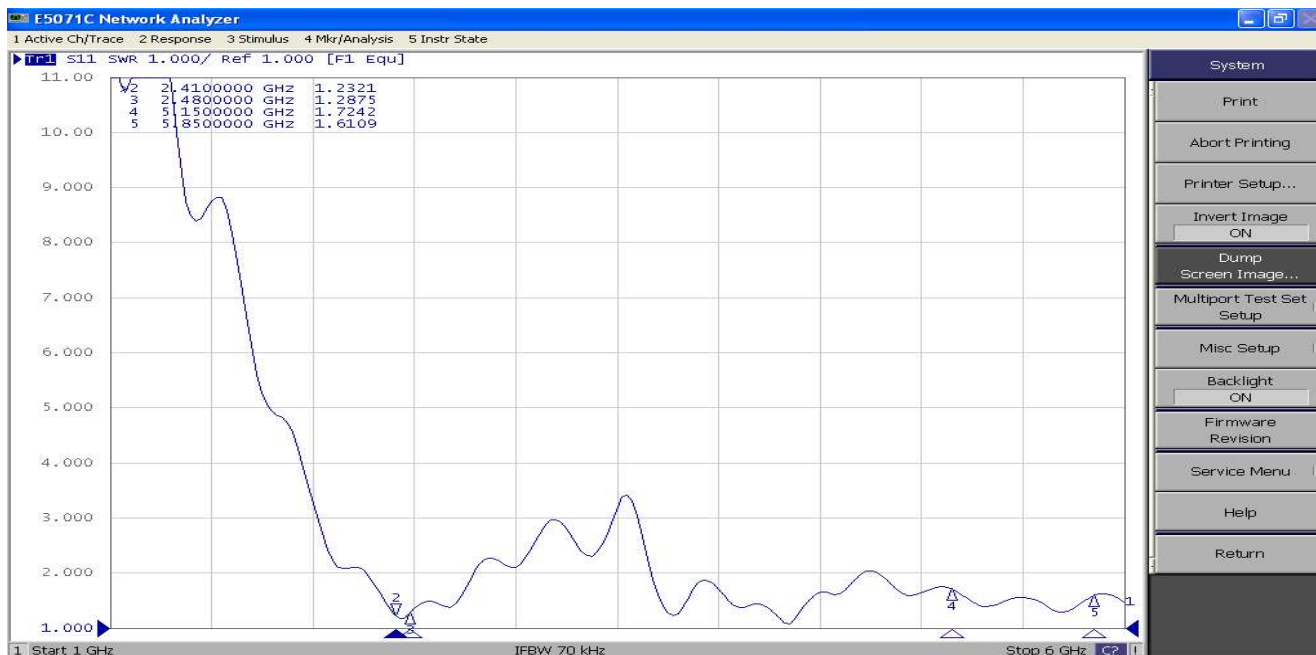


Phi axis test



Theta axis test

Antenna Impedance: WIFI ANT M:



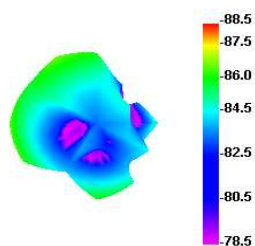
2.4GWIFI/BT	Freq (MHz)	2400	2410	2420	2430	2450	2460	2470	2480	2490	2500	ANT M
	Effi (%)	38.41	38.57	39.22	40.45	42.78	39.58	45.58	44.32	45.12	45.22	
	Gain (dBi)	2.12	2.34	2.46	2.88	2.47	1.99	2.89	2.71	2.81	2.78	
5G WIFI	Freq (MHz)	5150	5250	5350	5450	5550	5650	5750	5850	5950	6000	
	Effi (%)	45.58	49.41	47.25	50.13	51.25	48.14	50.56	52.32	55.41	49.87	
	Gain (dBi)	3.71	3.88	3.31	3.87	3.89	3.21	3.89	3.94	3.98	3.76	

OTD_DATA:(以下OTD_DATA是在本规格书中的天线所测试得来,更换天线或更改天线的安装方式,以下OTD_DATA将会失效)以下数据配合WIFI A ANT一起测得。

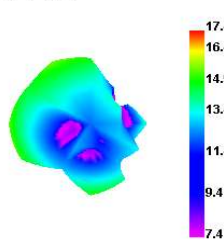
2.4G 802.11.B @11Mbit		
Frequency	TRP (dBm)	TIS (dBm)
1 (2412MHz)	13.11	-84.61
6 (2437MHz)	13.57	-83.5
13 (2472MHz)	13.61	-84.55

5G 802.11 A @MC54		
Frequency	TRP (dBm)	TIS (dBm)
36 (5180MHz)	14.5	-72.35
60 (5300MHz)	14.72	-71.89
161 (5805MHz)	13.88	-71.47

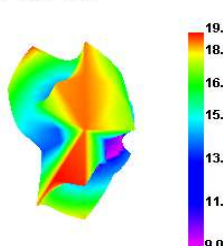
Wifi 1 TIS



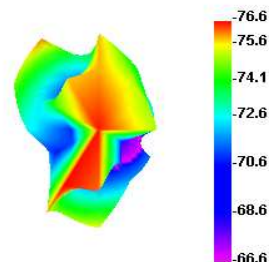
Wifi 1 TRP



Wifi 161 TRP



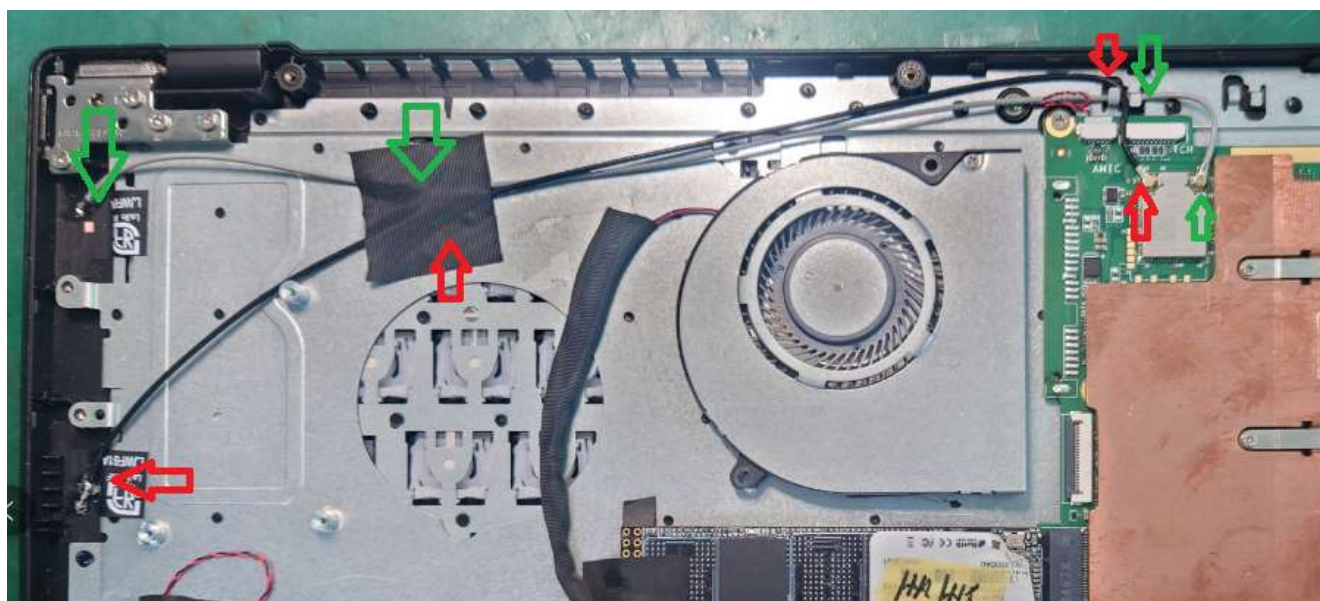
Wifi 161 TIS



天线安装工艺说明图片:



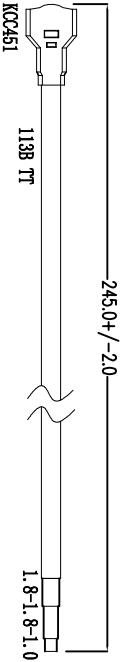
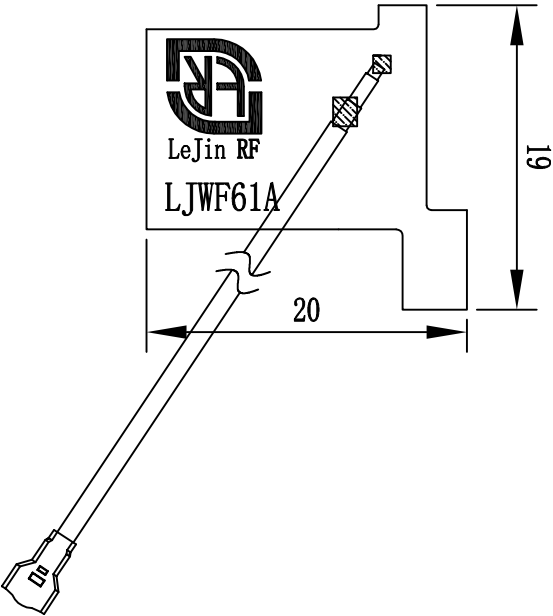
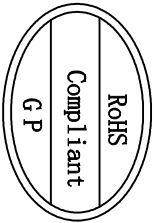
射频线固定及天线对应模块的端口



布线与整体环境处理:



天线工程图



SHEN ZHEN LEJIN RADIO FREQUENCY CO., LTD

						Third Angle		Project		RI529 ant		Date		2023-02-10					
				0~10		±0.05		○		0.02		Part Name		WIFI M ANT		Designed by			
				10~18		±0.10		◎		Ø0.03		Part No.				Checked by		MD	
				18~30		±0.12		┴		0.02		Material		LJWFO1-230210002-RIA		Approved by		RF	
				30~40		±0.15		∇		0.04									
				40~		±0.20		Angle		±0.5°		Treatment		LJWFO2-230210001M-ROA		Unit		mm	
				Location												Scale		FIT	
				1		2		3		Date		Remark		6		7		8	
				Rev		Description													
				A		New drawing													
				D															