



SPECIFICATIONS FOR APPROVAL

Customer Name: 智纬

Product Name: WIFI 2G+5G

Product Model: G105U (3165) WIFI AUX ANT

Part Number: LJF02-210304002A-R0A

Write By : 李明进

Issued Date: 2021/6/14

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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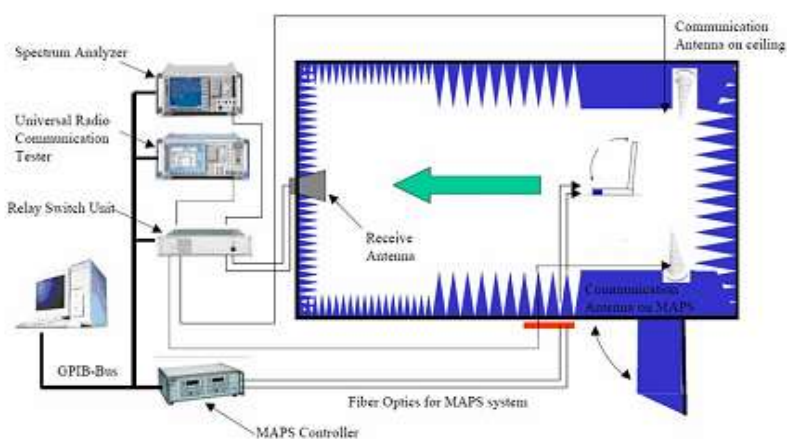
Electrical Characteristics

Frequency	VSWR	Efficiency	Impedance	Polarization	Gain
2400 MHz ~2500 MHz	<2	>20%	50 Ohm	Linear	≥ 1 DB
5100MHZ--5900 MHZ	<2.5	>25%	50 Ohm	Linear	≥ 1 DB

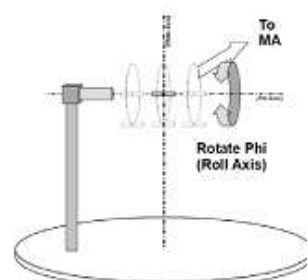
Material & Mechanical Characteristics				Environmental	
Material of Radiator	Cable Type	Connector Type	Dimension	Operation Temperature	Storage Temperature
FPC black/YELLOW	113B	IPX_4		- 20 °C ~ + 50 °C	- 30 °C ~ + 80 °C

Test Equipment & Conditions

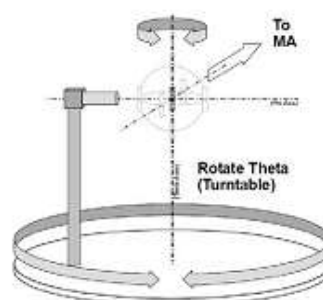
1. Network Analyzers :Agilent 8753SE 5071C
2. Communications Test Set:Agilent E5515C/CMW500
3. 3D Chamber Test System(ETS743)



(Testing by 3D anechoic chamber)

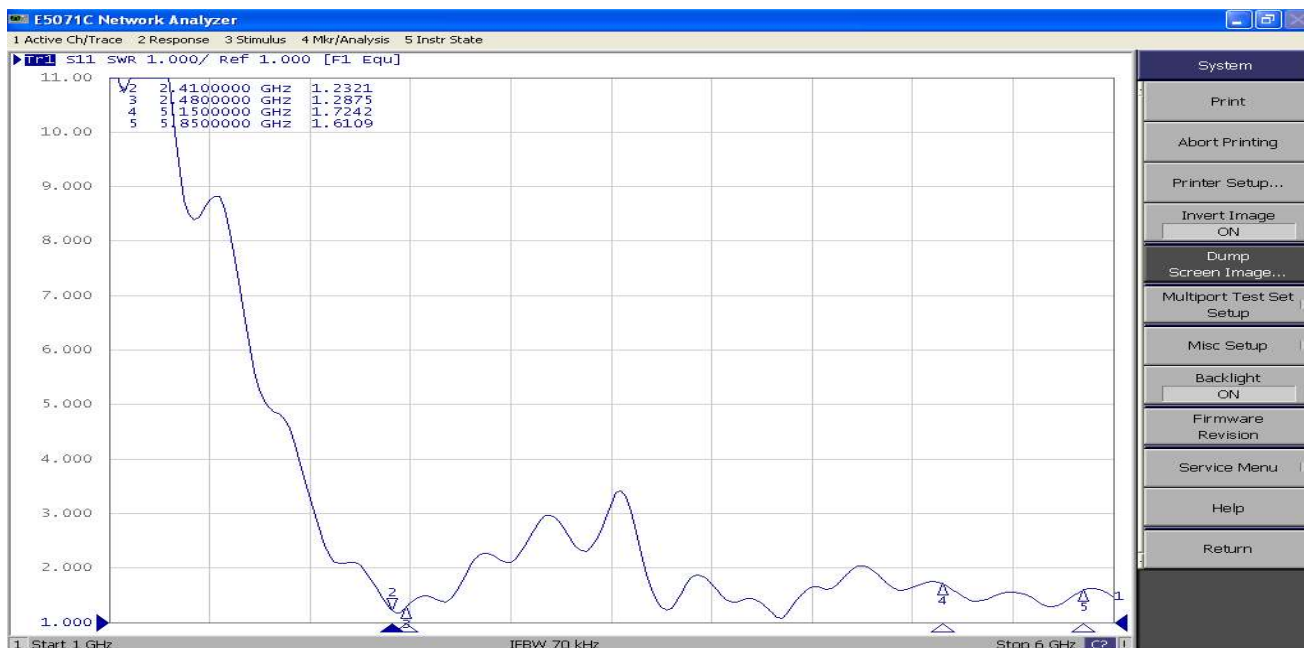


Phi axis test



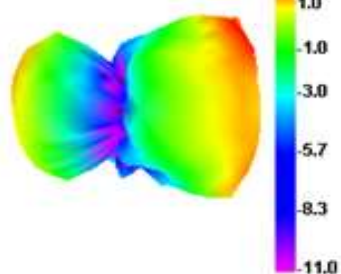
Theta axis test

Antenna Impedance: WIFI ANT A:

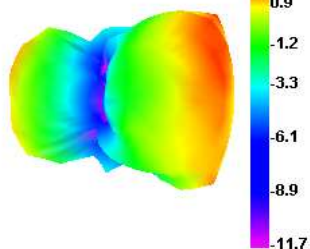


2.4G (Wifi and BT)	Freq (MHz)	2400	2410	2420	2430	2450	2460	2470	2480	2490	2500	ANT A
	Effi (%)	20.5	22.3	23.4	21.2	22	28.5	22.4	23.3	26.7	24.4	
	Gain (dBi)	3.3	3.02	2.98	2.99	3.02	2.78	2.44	2.44	2.58	2.7	
5G WIFI	Freq (MHz)	5150	5250	5350	5450	5550	5650	5750	5850	5950	6000	
	Effi (%)	30.5	33.4	33.75	35.75	33.68	35.5	36.6	33.5	39.1	33.75	
	Gain (dBi)	0.75	1.78	3.35	1.03	1.2	1.41	2.1	1.02	1.01	1.2	

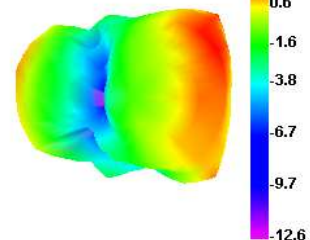
2400.000MHz



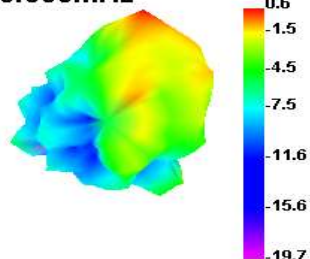
2450.000MHz



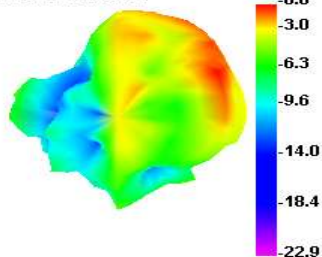
2480.000MHz



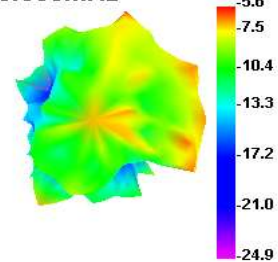
5150.000MHz



5350.000MHz



5850.000MHz



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将会失效测试时需关掉BT 配合WIFI主天线)

2.4G 802.11.B @11Mbit		
Frequency	TRP (dBm)	TIS (dBm)
1 (2412MHz)	7.81	-73.05
6 (2437MHz)	8.15	-74.47
13 (2472MHz)	7.87	-75.25

2.4G 802.11.G(ODF) @48Mbit		
Frequency	TRP (dBm)	TIS (dBm)
1 (2412MHz)	6.8	-68.18
6 (2437MHz)	5.98	-69.8
13 (2472MHz)	6.25	-68.3

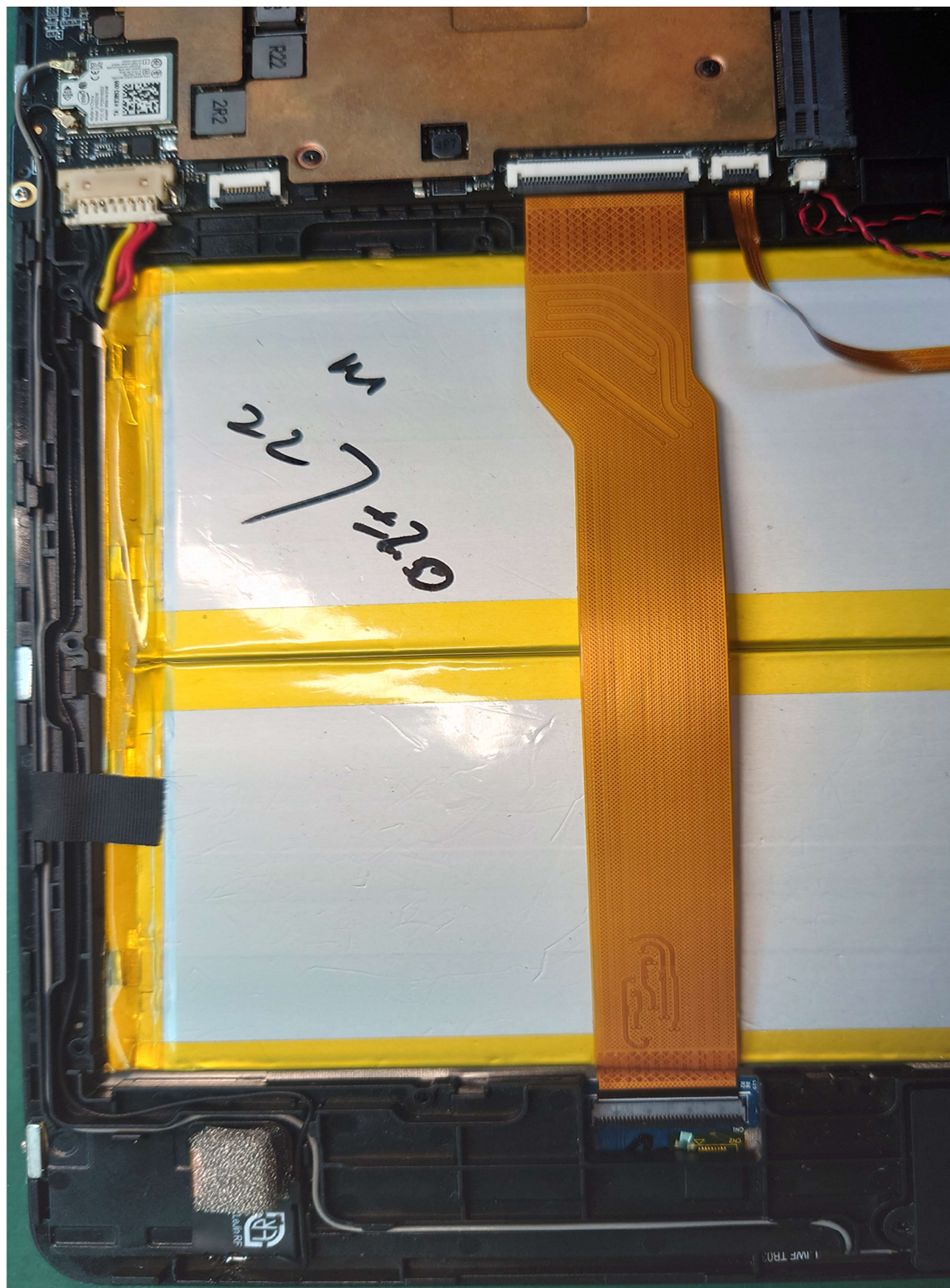
5G 802.11 A @54Mbit		
Frequency	TRP (dBm)	TIS (dBm)
36 (5180MHz)	7.78	-66.2
60 (5300MHz)	7.69	-67.1
161 (5805MHz)	7.05	-66.5

5G 802.11 N @MCS4		
Frequency	TRP (dBm)	TIS (dBm)
36 (5180MHz)	7.03	-70.68
60 (5300MHz)	7.97	-71.8
161 (5805MHz)	7.58	-70.09

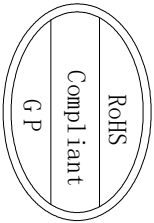
天线安装与环境处理：1， 主板处理部分



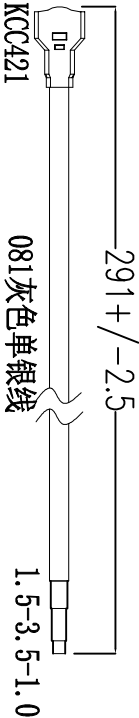
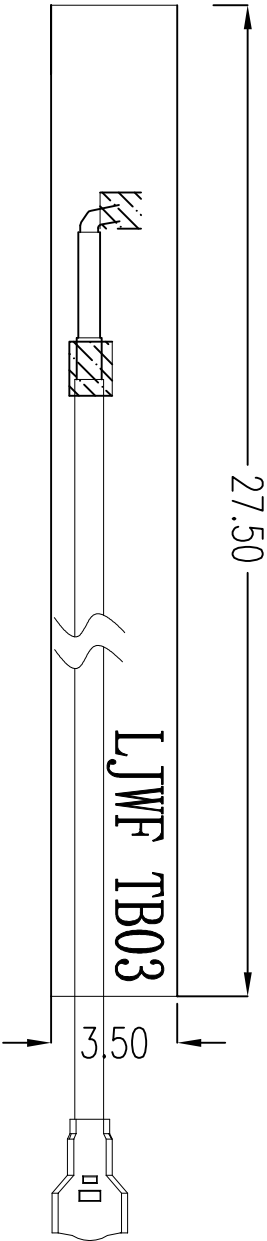
2. 天线安装部分



天线工程图纸：



0.25mm定制高柔性PCB材料



A		1		2		3		4		5		6		7		8	
RoHS Compliant G P																	
0.25mm定制高柔性PCB材料																	
LJWF TB03																	
27.50																	
3.50																	
291 +/- 2.5																	
1.5-3.5-1.0																	
KCC421																	
081灰色单银线																	
New drawing																	
Description																	
Date																	
Remark																	
Location																	
Third Angle																	
Project																	
Part Name																	
WIFI A																	
Date																	
2021-6-11																	
Part No.																	
Material																	
LJF01-21022501A-RIA																	
Treatment																	
Unit																	
mm																	
Scale																	
FIT																	
Rev																	
A																	