



Shenzhen Lejin radio frequency technology Co., LTD

## SPECIFICATIONS FOR APPROVAL

Customer Name: 深圳金亚太科技有限公司

Product Name: WIFI 双频天线

Product Model: TX 040203 020601

Part Number: LJF01-18091104-R0A

Write By : 付强

Issued Date: 2018-09-11

### CUSTOMER

ENGINEER R&D DEPT	BUSSINESS DEPT	APPROVED BY
<u>申健</u>		<u>付强</u> 2018.09.11

### LEJIN

R&D DEPT	ENGINEER R&D DEPT	

REV	MODIFIED DESCRIPTION	DATE	REMARK
V1.0	Initial Draft Release	2018/9/11	
V1.1	Revise the length of cable	2019/2/27	



## 目 录/Index

一、 封面 (Cover)	1
二、 目录 (Index)	2
三、 规格 (Product Specification)	3
四、 测试设备 (Test Equipment & Conditions)	3
五、 性能测试报告 (Test Report)	4
六、 Reliability Test/可靠性测试	5
七、 Package/包装	6
八、 工程图纸 (Product Drawing)	7



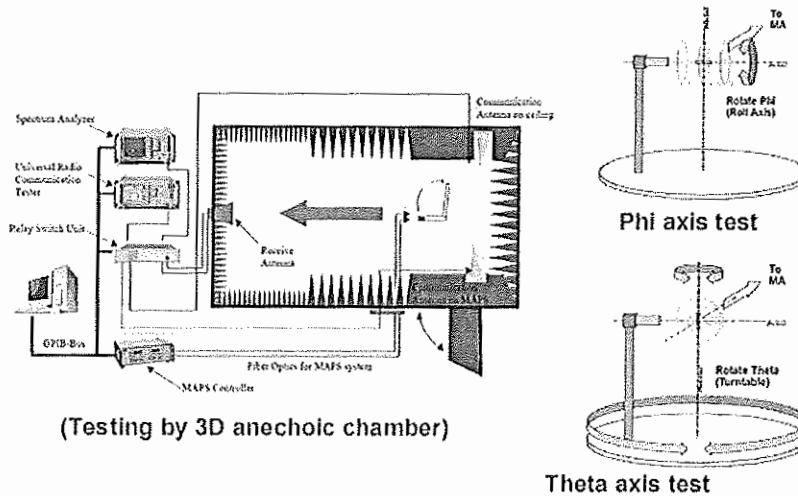
### 三、Product Specification/规格

A. Electrical Characteristics	
Frequency	2400 MHz ~2500 MHz 5150 MHz ~5850 MHz
VSWR	<2.0
Efficiency	>40%
Impedance	50 Ohm
Polarization	Linear
Gain	>=2.0dB
B. Material & Mechanical Characteristics	
Material of Radiator	FPC Black
Cable Type	Ø 1.13mm
Connector Type	IPEX-1
Dimension	
C. Environmental	
Operation Temperature	- 30 °C ~+ 80 °C
Storage Temperature	- 30 °C ~+ 85 °C
Humidity	40%~95%

### 四、Test Equipment & Conditions/测试设备及条件

Network Analyzers	Agilent 8753D/5071C
HSPA+和LTE协议测试仪	R&S CMW500 -PT
Communications Test Set	Agilent 8960

### 3D Chamber Test System



五、 Antenna Efficient & Gain(天线效率&增益)

Passive Test For WIFI2G		
Freq(MHz)	Effi (%)	Gain(dBi)
2410	52.36	2.00
2420	54.90	1.97
2430	53.66	2.15
2440	56.98	1.91
2450	55.54	2.14
2460	58.73	2.36
2470	56.16	2.28
2480	57.03	2.03
2490	56.49	1.81
2500	54.53	2.22

Passive Test For WIFI5G		
Freq(MHz)	Effi (%)	Gain(dBi)
5150	50.51	1.99
5200	54.04	2.15
5250	57.36	2.02
5300	60.76	2.27
5350	60.64	2.05
5400	63.19	2.40
5450	62.72	2.15
5500	61.57	2.54



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5550	55.19	2.59
5600	58.63	2.33
5650	57.75	2.46
5700	60.06	2.26
5750	57.77	2.05
5800	57.70	2.11
5850	55.87	2.02

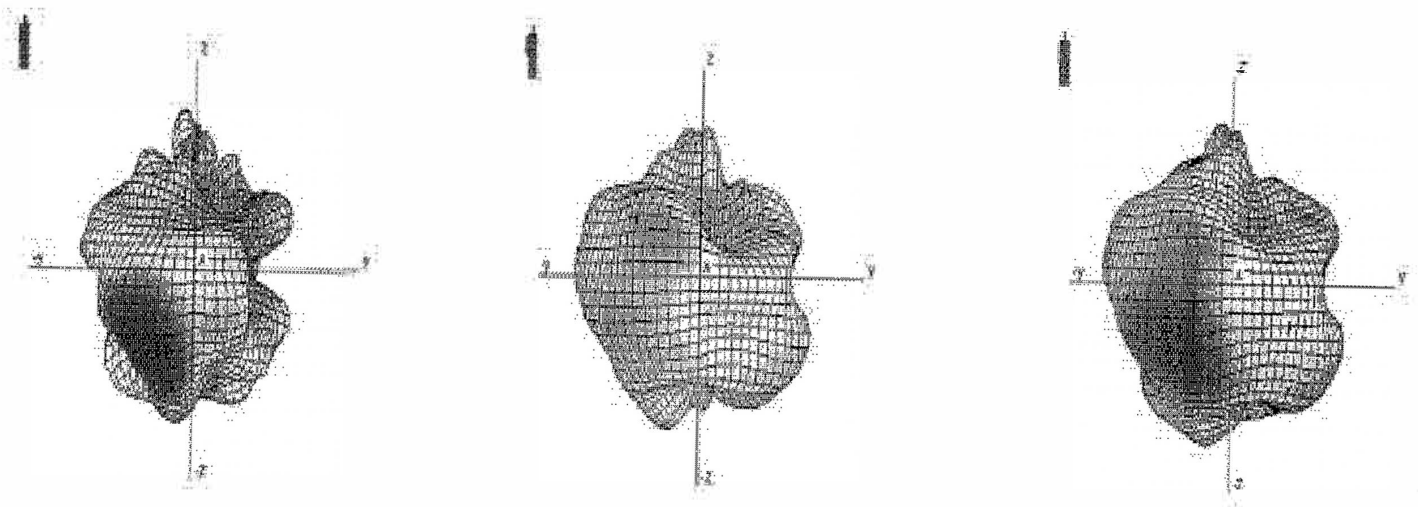


图1辐射模式图

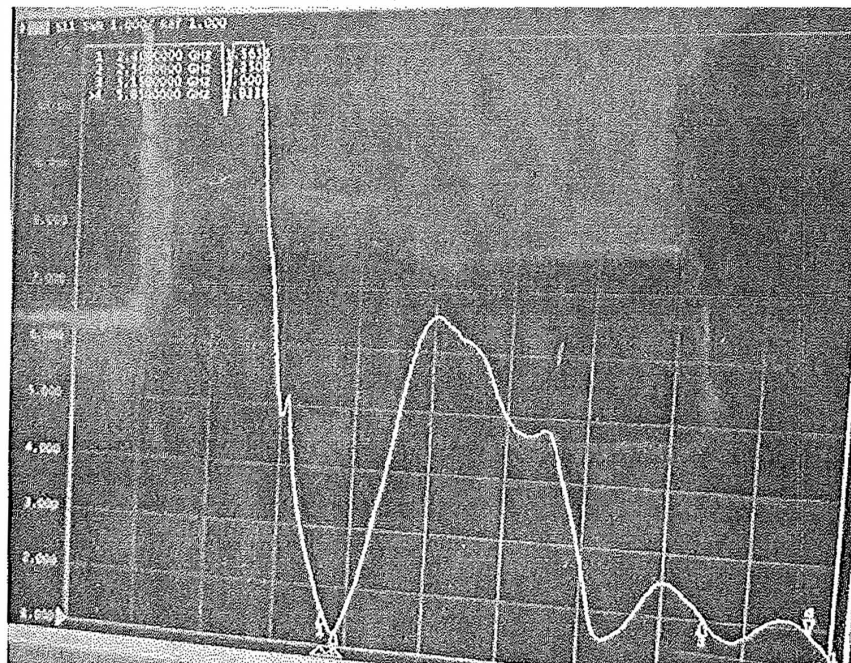


图 2 电压驻波比



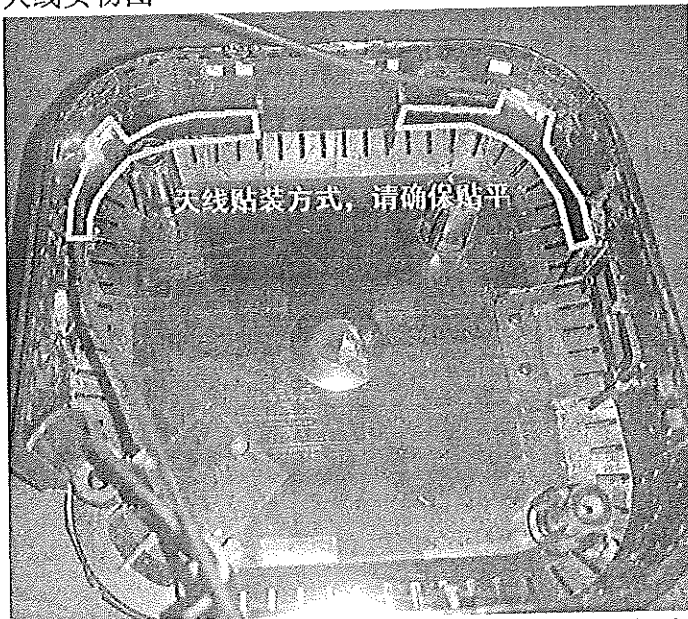


六、Reliability Test/可靠性测试

Test Item	Test condition	Equipment	Specification	Result
1 Low Temp. Storage Test	Temperature: -30℃, Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-down the temp. to -30℃ in one hour, store antenna for 44 hours; step-up temp to 25℃,test antenna after 2 hours.	Temp.&Humi. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
2 High Temp./High Humid Storage Test	Temperature: 85℃ Humidity: 85% RH Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-up the temp. to 80℃ and the humidity up to 85% in one hour, store antenna for 44 hours; step-down temp to 25℃,test antenna after 2 hours.	Temp.&Humi. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
3 Salt-Spray Test	Placing antenna in the Salt-Spray Tester ,set the test condition,Temp: 35 ± 2℃ Humidity: 85% NaCl salt spray :5 ± 1 %.PH value :6.5~7.2 Test time:24hours	Salt-Spray Tester	No color change No appear rusting	PASS

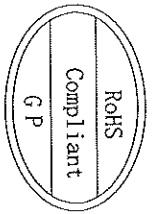
七、Package/包装

(1) 天线实物图

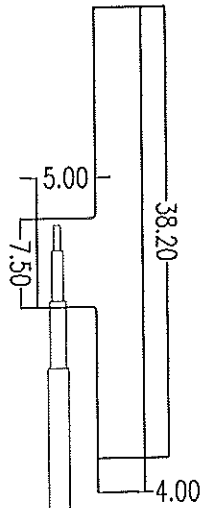


备注：线长加长后天线装帖位置没有变化，建议适当位置打胶固定同轴线。

九、Product Drawing/工程图纸



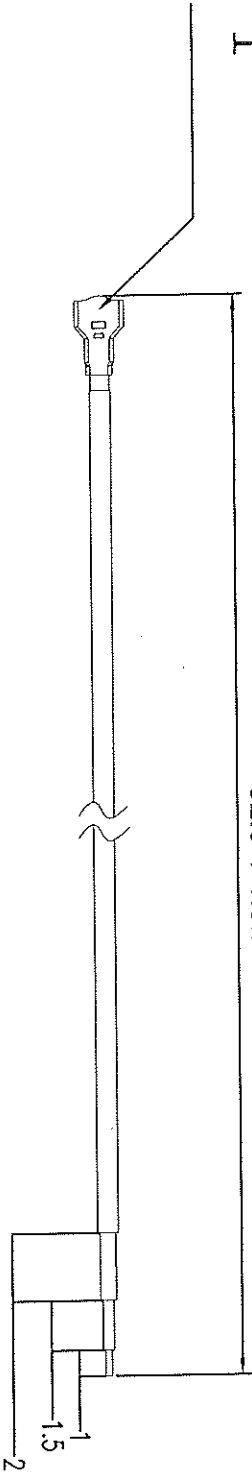
此PC为焊接类型PFC,  
油漆厚度300°以上高温



端子口朝上, FPC黑油面

IPX-I

92.0+/-1.5mm



# 1.13黑色同轴线

要求:

1. "\*"为重点尺寸.
2. FPC材料: 电解铜, 一对半材质 (蔡伦格帝).
3. 反面背胶 (3M300LSE).
4. 未标公差尺寸请依图纸, 模具冲出尺寸公差为±0.1, 铜箔线条尺寸公差为±0.05, 标重点的孔公差为±0.05.
5. 各零件中Pb、Hg、Cr+6、PBBs、PBDEs各项小于1000PPM, Cd小于100PPM.



深圳乐进射频科技有限公司  
SHEN ZHEN LEJIN RADIO FREQUENCY CO., LTD

Project: JYT-TX      Date: 2018-09-11

Part Name: WIFI双频天线      Checked by: MD

Material:      Treatment: LJP01-18091104-R0A      Approved by: RF

Location: 40~      Angld: ±0.5°

0~10 ±0.05      10~18 ±0.10      18~30 ±0.12      30~40 ±0.15

Unit: mm      Scale: FIT      Rev: A

Rev	Description	Date	Remark
1	New drawing		