



Shenzhen Lejin radio frequency technology Co., LTD

SPECIFICATIONS FOR APPROVAL

Customer Name: 深圳市希之望科技有限公司

Product Name: 2.4/5GHz WIFI 天线

Product Model: WL8012T/WL8017T

Part Number: LJF02-20091503-R0A

Write By : 胡雪文

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CUSTOMER

ENGINEER R&D DEPT	BUSSINESS DEPT	APPROVAL

LEJIN

R&D DEPT	ENGINEER DEPT	APPROVAL

REV	MODIFIED DESCRIPTION	DATE	REMARK
V1.0	Initial Draft Release	2020/9/25	



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三、规格 (Product Specification)

A. Electrical Characteristics	
Frequency	2400-2500MHz 5250-5850MHz
VSWR	<2.0
Efficiency	>30%
Impedance	50 Ohm
Polarization	Linear
Gain	>=1.5dB
B. Material & Mechanical Characteristics	
Material of Radiator	FPC
Cable Type	Φ 1.13mm, 150mm
Connector Type	IPX1
Dimension	
C. Environmental	
Operation Temperature	- 30 °C ~ + 80 °C
Storage Temperature	- 30 °C ~ + 85 °C
Humidity	40%~95%

四、测试设备 (Test Equipment & Conditions)

- 1.Network Analyzers Agilent 8753D/5071C
- 2.HSPA+和LTE协议测试仪 R&S CMW500 -PT
- 3.Communications Test Set Agilent 8960
- 4.3D Chamber Test System

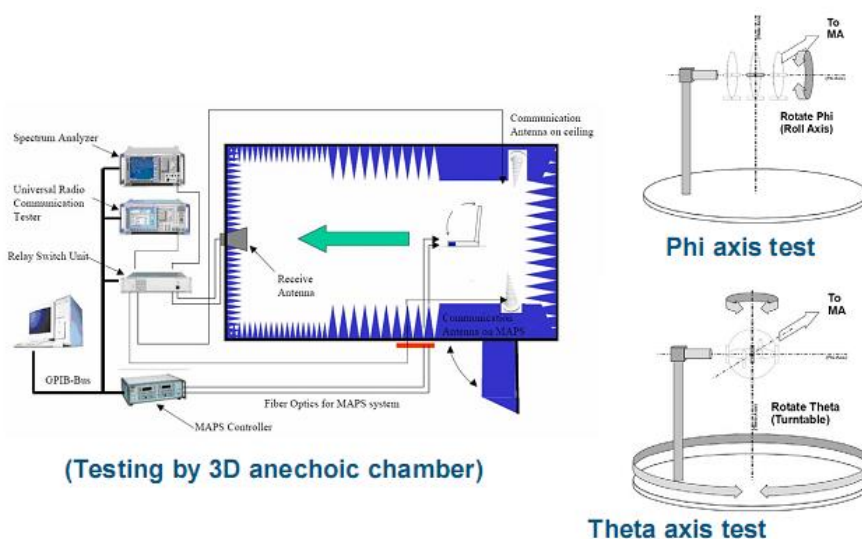


图 1 Test topology



五、性能测试报告（Test Report）

5.1 天线驻波图

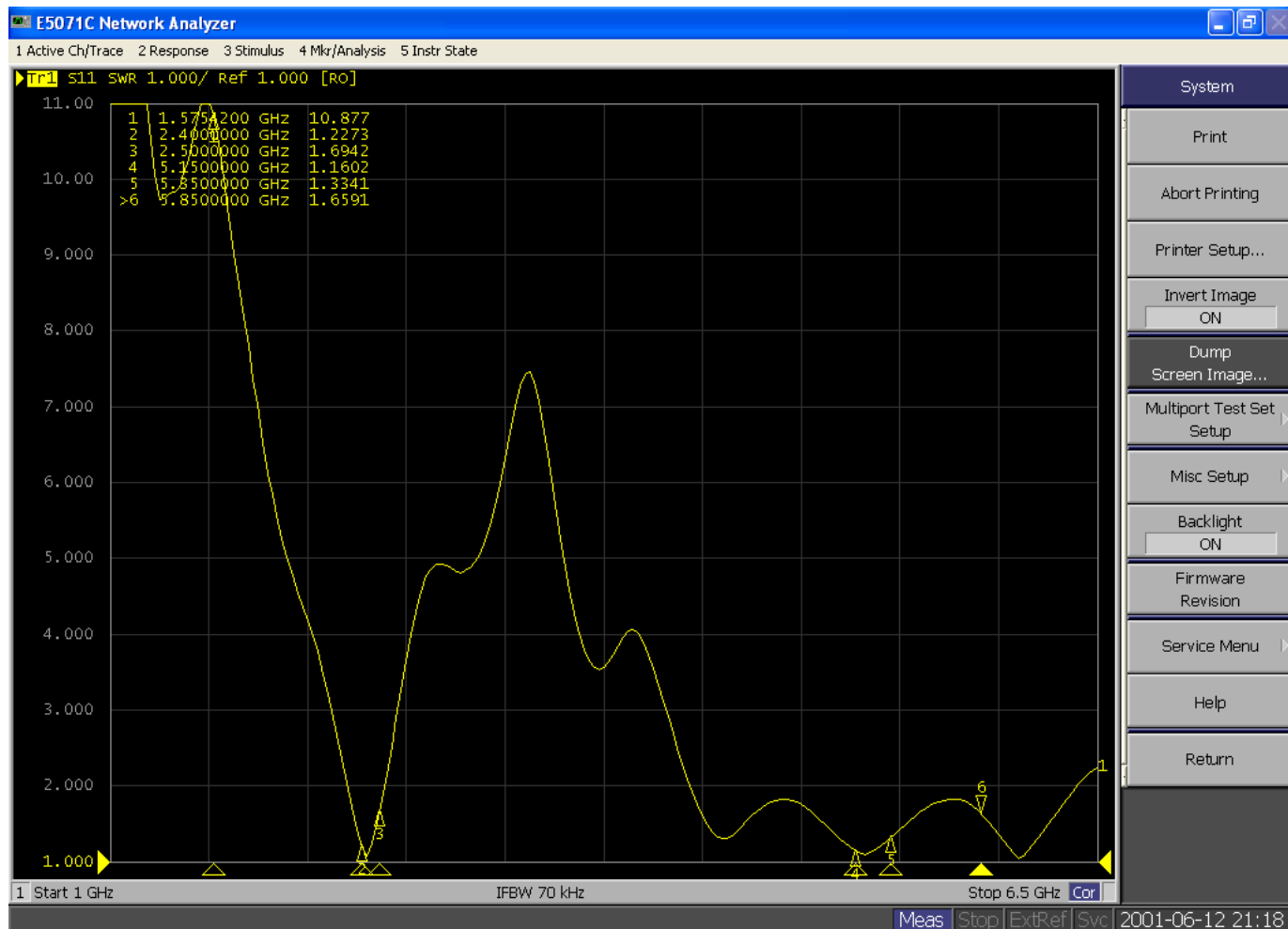


图 2 天线驻波图

5.2 Antenna Efficient & Gain(天线效率&增益)

Passive Test For 2.4G			Passive Test For 5G		
Freq(MHz)	Effi (%)	Gain(dBi)	Freq(MHz)	Effi (%)	Gain(dBi)
2400	54.21	3.52	5150	44.83	2.66
2410	53.94	3.79	5200	46.18	2.13
2420	53.94	3.90	5250	46.12	2.41
2430	52.07	3.90	5300	46.21	2.39
2440	53.58	3.97	5350	46.36	2.62
2450	53.68	3.12	5400	44.38	2.27
2460	53.45	3.08	5450	44.11	2.55
2470	53.01	3.12	5500	44.91	2.09
2480	53.39	3.28	5550	45.67	2.00
2490	54.88	3.62	5600	45.82	2.72
2500	56.81	3.99	5650	45.99	2.08



	5700	46.75	2.62
	5750	46.90	2.21
	5800	43.18	2.07
	5850	45.54	2.81

六、可靠性测试 (Reliability Test)

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 6 pray 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、包装(Package)

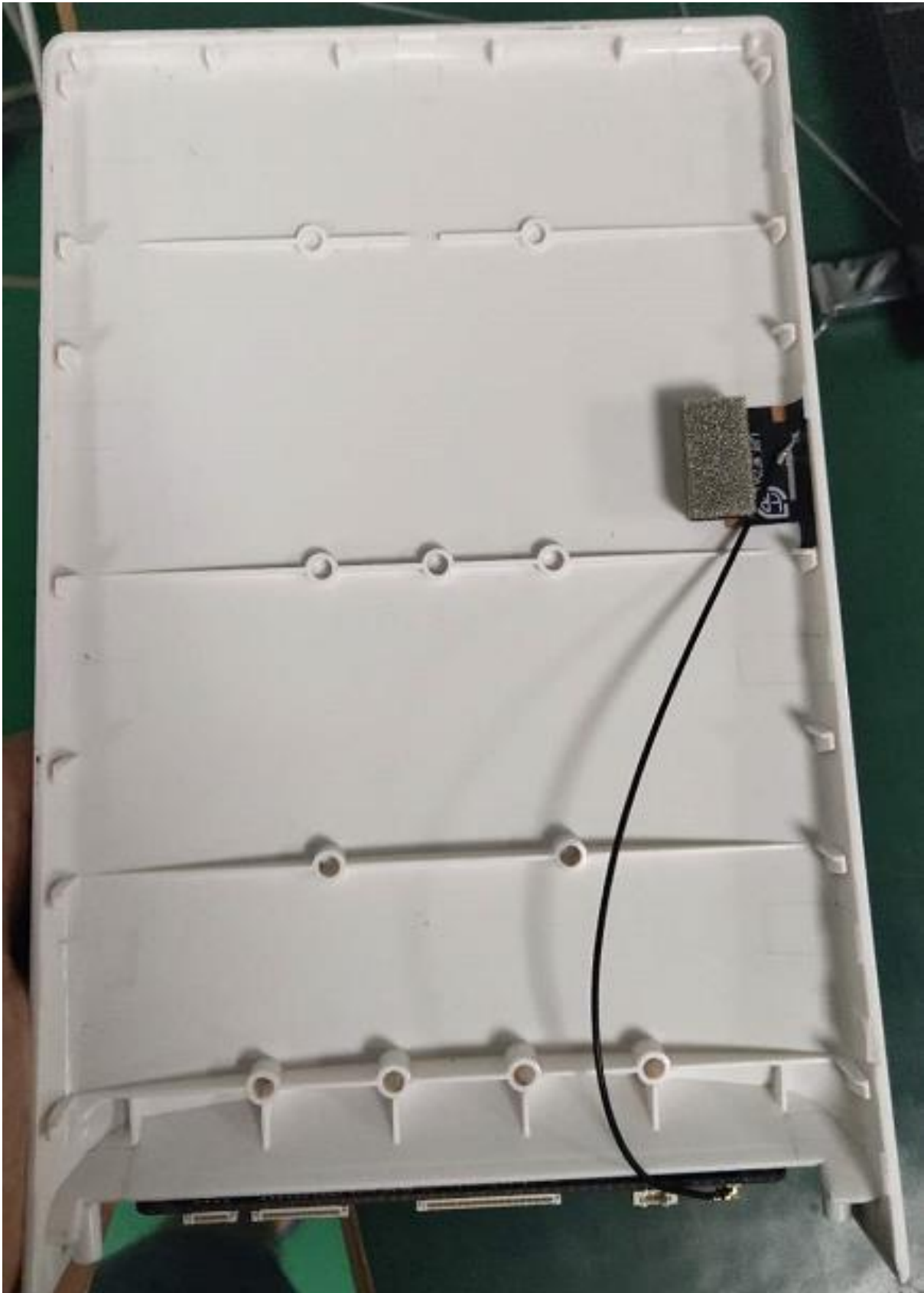
(1) 天线实物图



图 4 天线装配图 (WL8012T/WL8017T)



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(2) 产品包装(略)

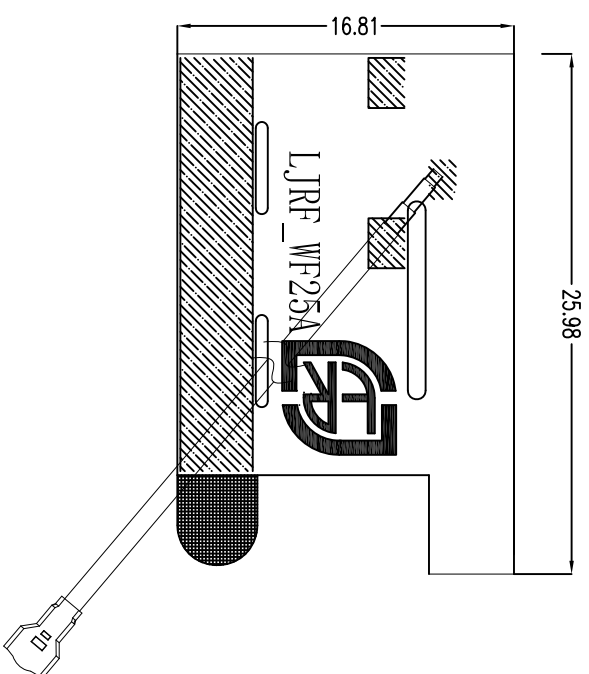
八、工程图纸(Product Drawing)

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Rev		Description		Date		Remark		1		2		3		4		5		6		7		8	
A		New drawing																					
D																							
1																							

0~10		±0.05	Third Angle	0.02	Project	ELC-WJ8012T WJ8017T	Date	2020-09-25					
10~18		±0.10	0.03	∅0.03	Part Name	WIFI_MAIN	Designed by						
18~30		±0.12	0.02	0.02	Part No.		Checked by	MD					
30~40		±0.15	0.04	0.04	Material	LJF01-19042701A-R0A	RF						
40~		±0.20	Angle	±0.5°	Treatment	LJF02-20092503-R0A	Approved by						
Location								Unit	mm	Scale	FIT	Rev	A

深圳乐进频率科技有限公司

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