Shenzhen Lejin radio frequency technology Co., LTD

SPECIFICATIONS FOR APPROVAL

Customer Name: Shenzhen Suichen Technology Co.,Ltd

Product Name: BT Antenna

Antenna type: FPC Antenna

Product Model: P203

Part Number: LJF02-21051908B-R0A

Write By : Limingjin

Issued Date: 2021-05-19

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	2021/05/19	

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3.Product Specification

A. Electrical Characteristics	
Frequency	2400MHz ~2500 MHz
VSWR	<2.0
Efficiency	⩾40%
Antenna type	PIFA
Impedance	50Ohm
Polarization	Linear
Gain	⩽2.26dBi
B. Material & Mechanical Characteristics	
Material of Radiator	FPC,black,,LJWF28BFB
Cable Type	Φ0.81mm,L100mm,Black
Connector Type	IPX3
Dimension	25.0mm*13.0mm
C. Environmental	
Operation Temperature	- 20 ˚C ~ + 70 ˚C
Storage Temperature	- 30 ˚C ~ + 85 ˚C
Humidity	40%~95%

4.Test Equipment & Conditions

1.Network Analyzers Agilent 8753D/5071C

2.HSPA and LTE protocol test set R&S CMW500 -PT

3.Communications Test Set Agilent 8960

4.3D Chamber Test System

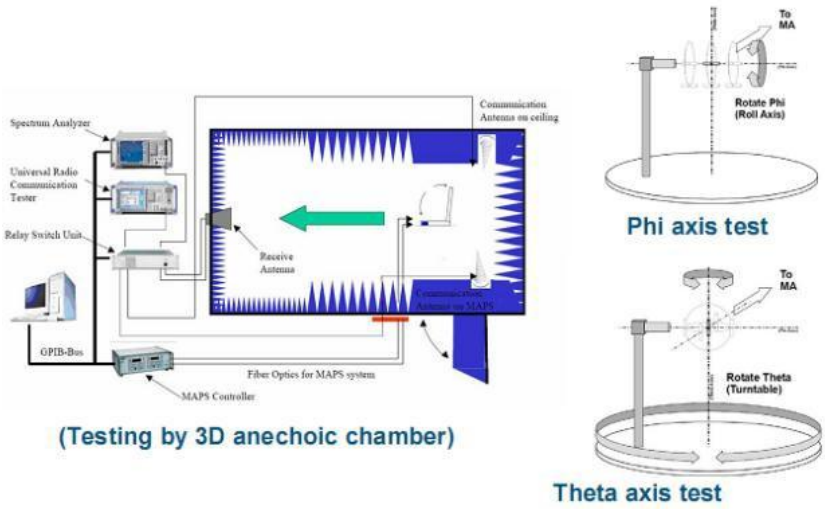


Chart 1 Test topology

5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

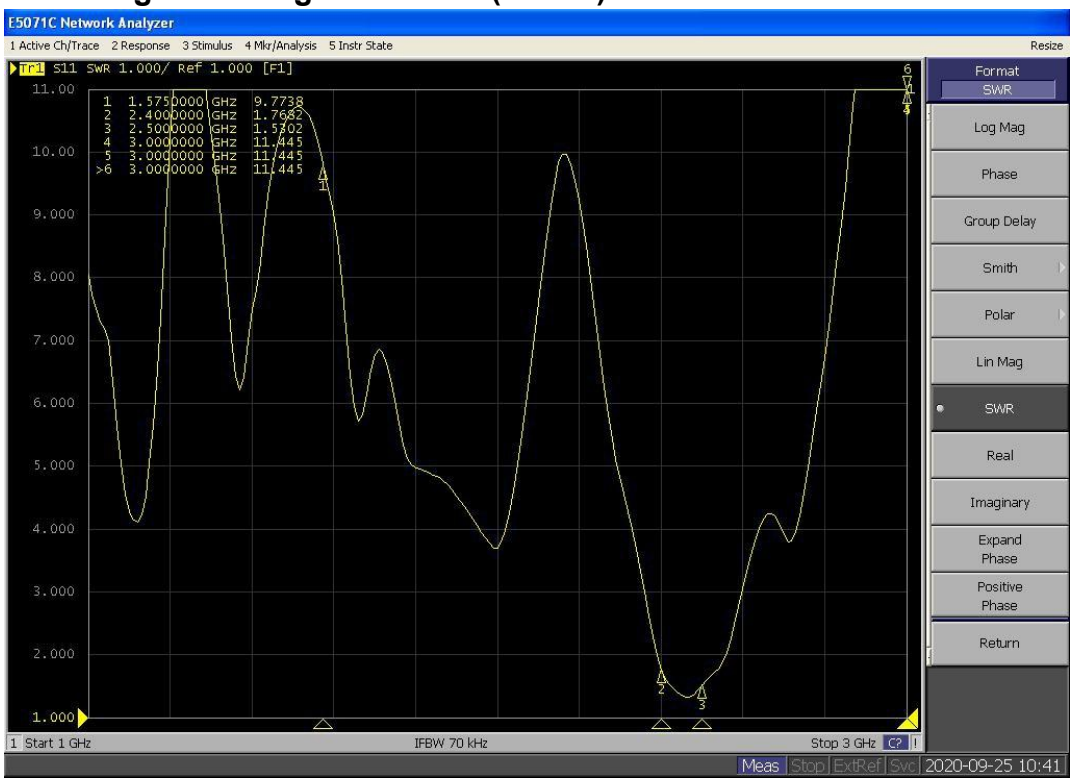
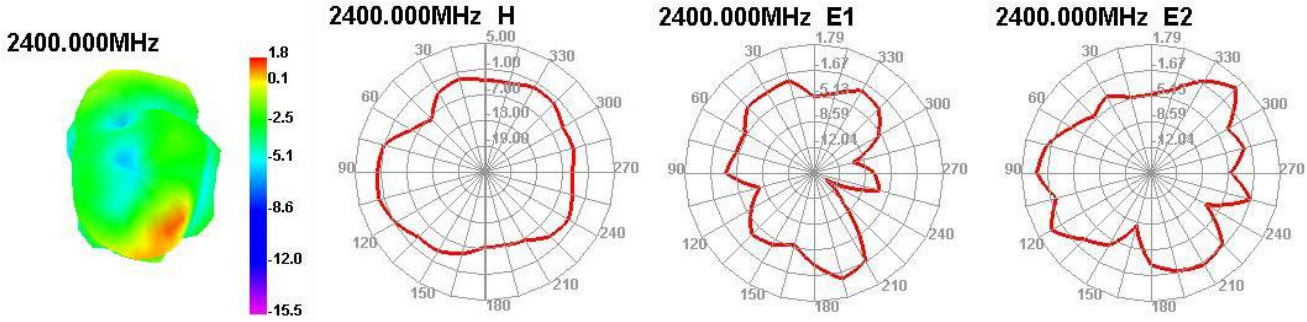


Chart 2 VSWR

5.2 Efficient and gain.

Passive Test For BT	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
	Effi(%)	43.47	46.94	44.9	45.87	45.96	50.61	46.42	44.79	45.88	40.79	38.68
	Gain(dBi)	1.98	2.26	1.99	2.1	1.93	2.13	1.97	1.89	1.83	1.79	1.64

5.3 Radiation pattern.



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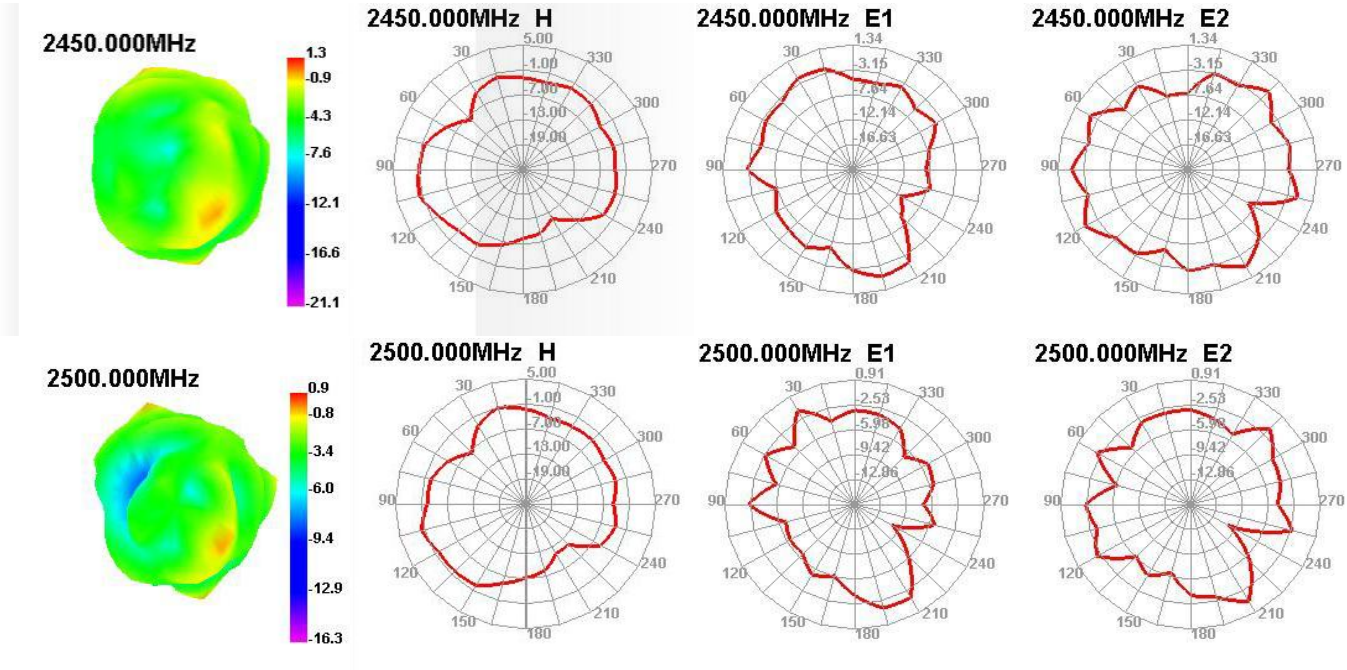

6.Reliability Test

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 for44 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 tempto 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 Testtime:24hours	Salt-Spray Tester	No color change No appear rusting	PASS

7.Assemble type

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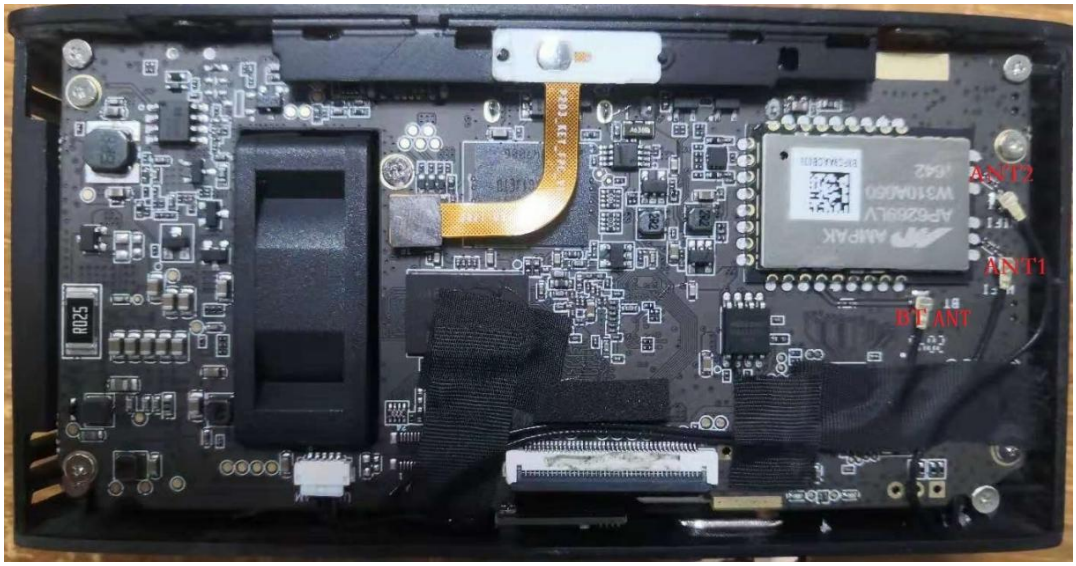

Chart 3 Assemble type(overall)

Chart 4 Assemble type

8.Product Drawing

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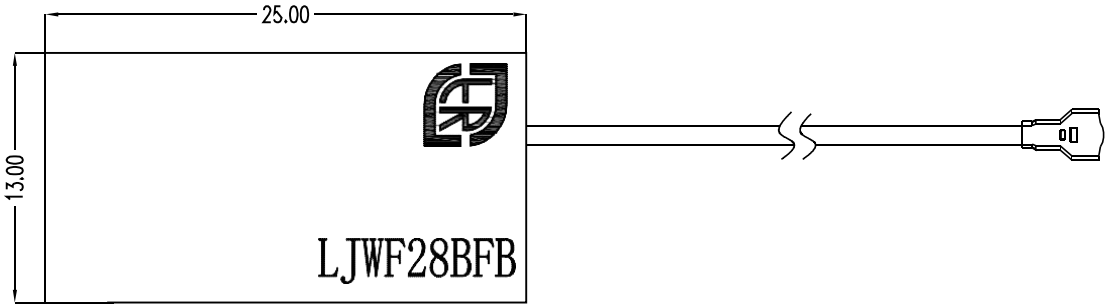
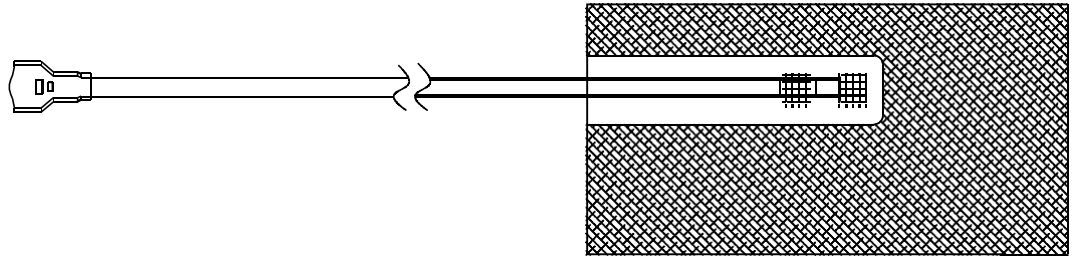
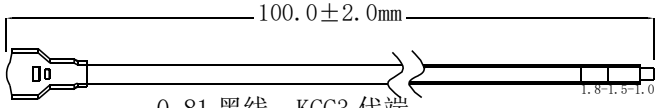
RoHS
Compliant
G P







0.81 黑线，KCC3 代端子

深 圳 乐 进 射 频 科 技 有 限 公 司
SHEN ZHEN LEJIN RADIO FREQUENCY CO.,LTD

Third Angle			
0～10	±0.05	○	0.02
10～18	±0.10	◎	∅0.03
18～30	±0.12	⊥	0.02
30～40	±0.15	▱	0.04
40～	±0.20	Angle	±0.5°
Location			

Project	随晨科技
Part Name	P203-BT
Part No.	LJWF28FB
Material	
Treatment	
LJF02-21051908B-R0A	

Date 2021-03-06
Designed by
Checked by MD / RF
Approved by
Unit mm | Scale FIT | Rev A

Rev	Description	Date	Remark
A	New drawing		

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