SPECIFICATIONS FOR APPROVAL

Customer Name: Sorenson Communications, LLC

Product Name: 2.4G Antenna

Product Model: P3

Part Number: LJT02-23112508-R0A

Write By : Mingjin Li

Issued Date: 2023-11-25

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	2023/11/25	

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Index

1. **Cover** • **1**

2. **Index** • **2**

3. **Product Specification** • **3**

4. **Test Equipment & Conditions** • **3**

5. **Test Report** • 4

6. **Reliability Test** • **5**

7. **Assemble type** • **5**

8. **Product Drawing** • **6**

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3.Product Specification

A. Electrical Characteristics	
Frequency	2400MHz ~2525 MHz
VSWR	<2.0
Efficiency	⩾40%
Impedance	50Ohm
Polarization	Linear
Gain(2.4G)	2.07dB
B. Material & Mechanical Characteristics	
Material of Radiator	Copper tube
Cable Type	Φ1.13mm,L70mm,black
Connector Type	IPX1
Dimension	Φ4.4mm*24.0mm
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

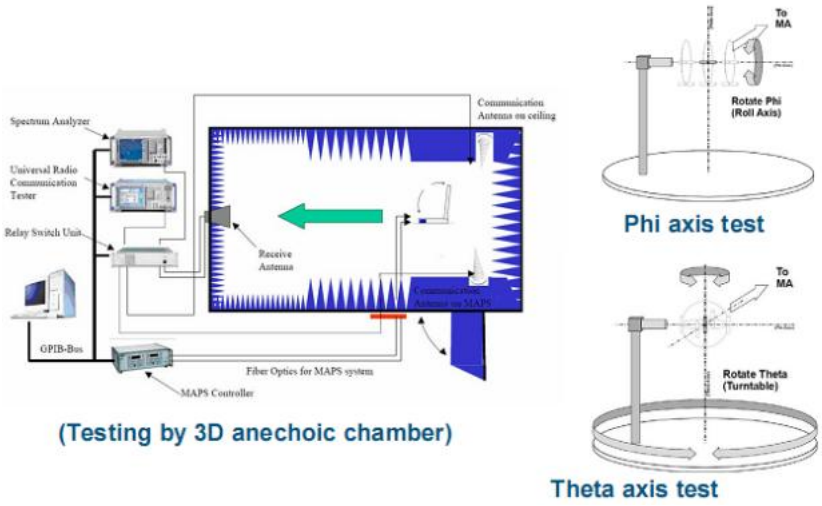

Chart 1 Test topology

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5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

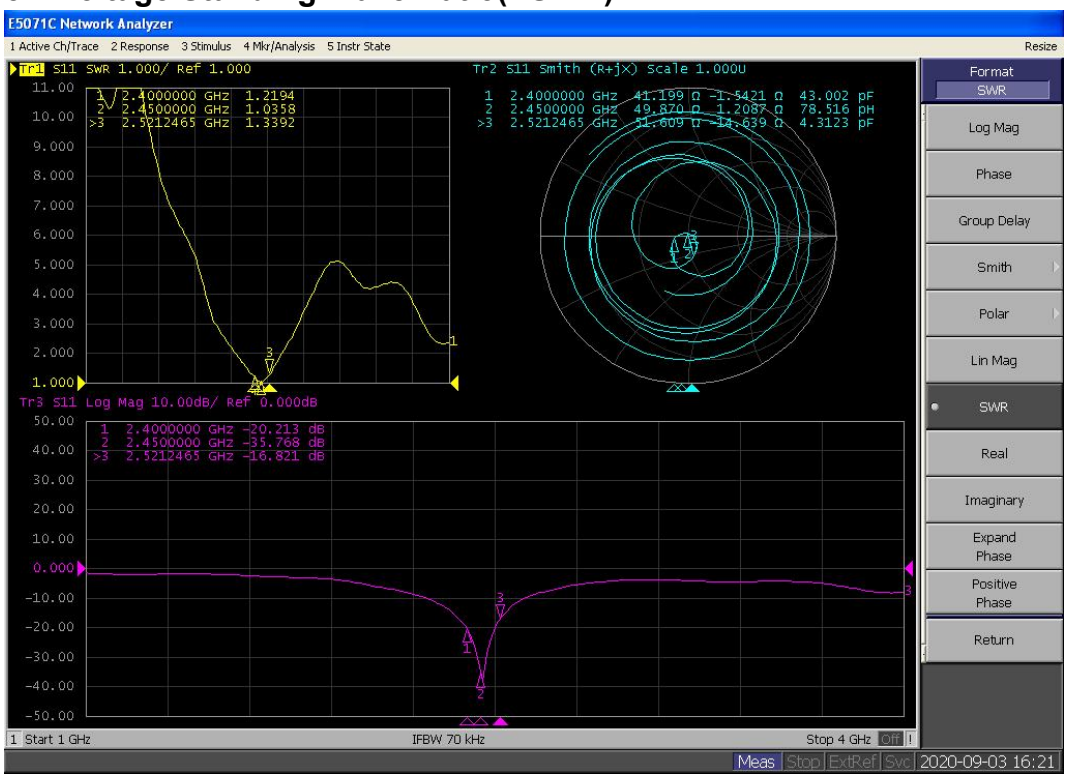
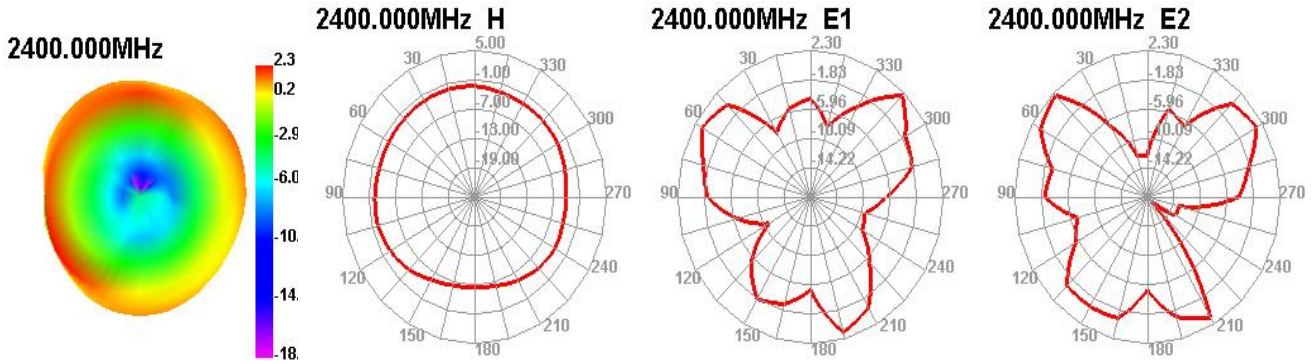


Chart 2 VSWR

5.2 Efficient and gain.

Passive Test For 2.4GHz	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500	2510	2520	2530
	Effi(%)	57.66	63.34	56.48	57.02	59.82	59.12	55.64	60.81	55.18	50.44	51.01	49.47	53.37	51.65
	Gain(dBi)	1.93	1.97	1.86	2.02	2.07	2.02	1.91	1.83	1.85	1.85	1.87	1.85	1.79	1.88

5.3 Radiation pattern.



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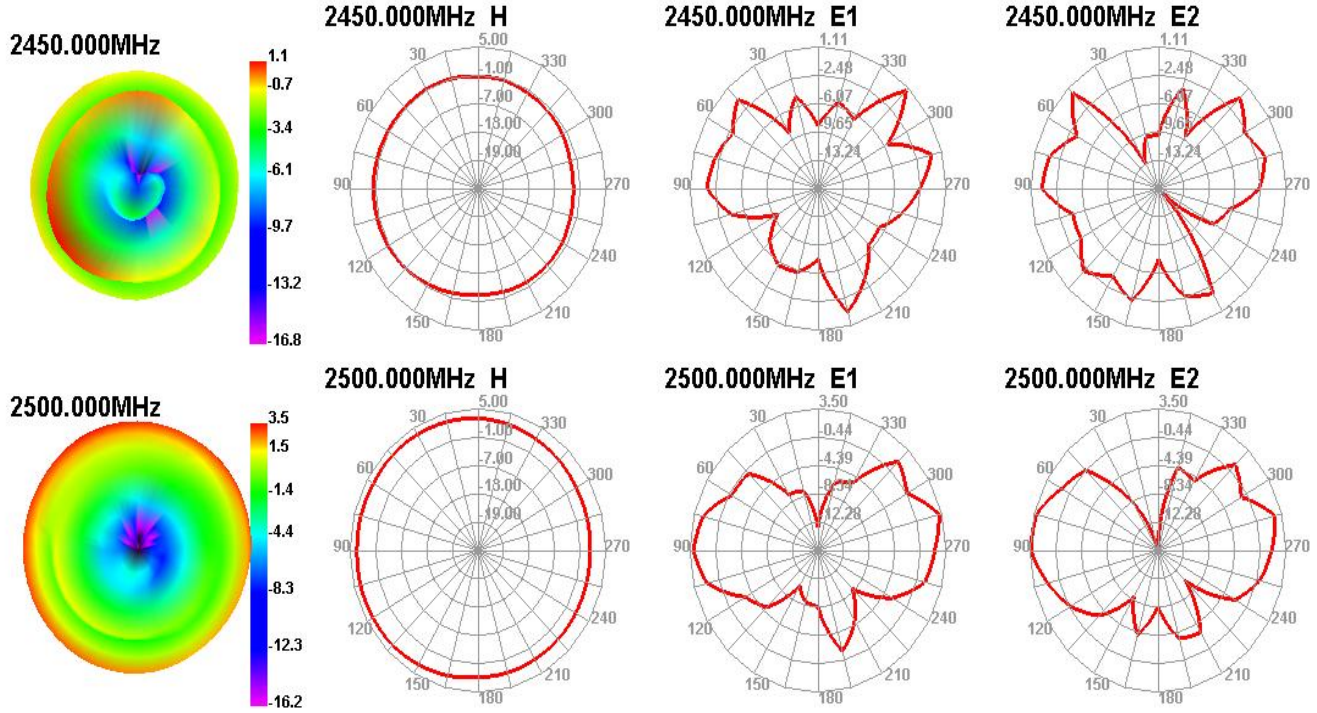

6.Reliability Test

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

8.Product Drawing

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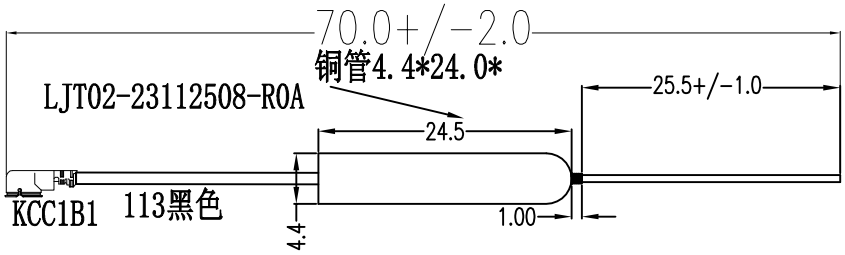
RoHS
Compliant
G P

线材焊铜管图



Rev	Description	Date	Remark
A	New drawing		

深 圳 市 乐 进 射 频 科 技 有 限 公 司

Third Angle				Project	ALK	Date	2023-11-25
0~10	±0.05	○	0.02	Part Name		Designed by	
10~18	±0.10	◎	∅0.03	Part No.		Checked by	MD
18~30	±0.12	⊥	0.02	Material			RF
30~40	±0.15	▱	0.04	DWG No.		Approved by	
40~	±0.20	Angle	±0.5°			Unit mm	Scale 1:1 Rev A
Location							