



Shenzhen Lejin radio frequency technology Co., LTD

SPECIFICATIONS FOR APPROVAL

Customer Name: _____

Product Name: Antenna

Product Model: DJ02

Part Number: LJS02-22082308-R0A

Write By : Huxuwen

Issued Date: 2022-08-23

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	2022/08/23	



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3.Product Specification

A. Electrical Characteristics	
Frequency	430MHz ~480 MHz
VSWR	<3.0
Efficiency	≥15%
Impedance	50Ohm
Polarization	Linear
Gain	≤ 0 dBd
B. Material & Mechanical Characteristics	
Material of Radiator	Metal
Cable Type	N/A
Connector Type	Soldering
Dimension	O.D.6.5*41.6mm
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 | |

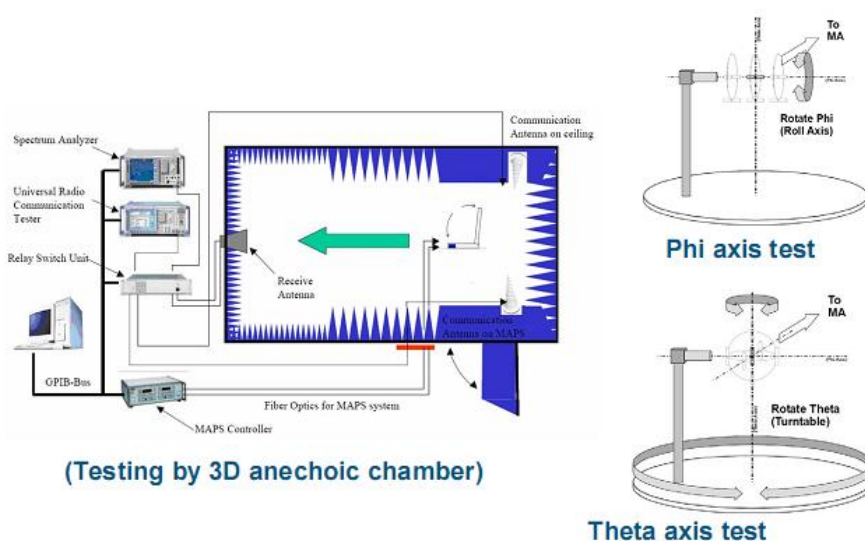


Chart 1 Test topology

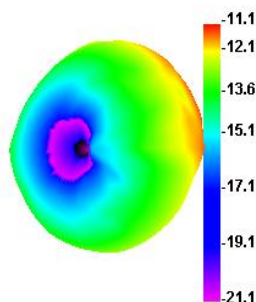
5.Test Report

5.1 Efficient and gain.

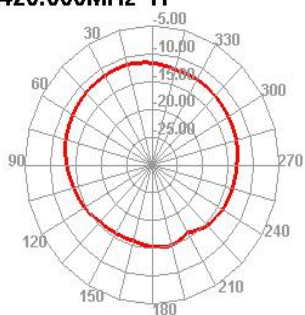
Passive Test	Freq(MHz)	420	430	440	450	460	470	480	490
	Effi(%)	12.85	18.11	28.21	19.75	22.79	23.31	23.48	23.23
	Gain(dBd)	-4.38	-4.27	-2.77	-3.32	0	-2.88	-2.66	-2.36

5.2 Radiation pattern.

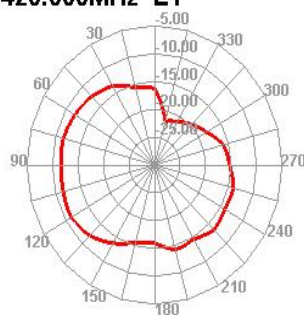
420.000MHz



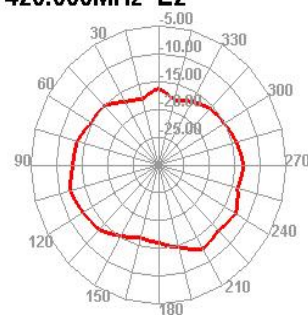
420.000MHz H



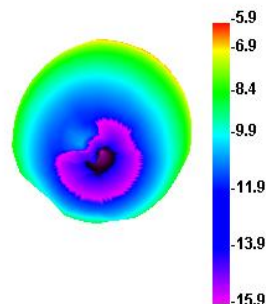
420.000MHz E1



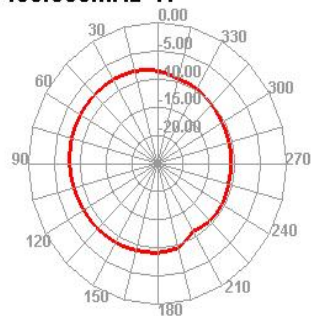
420.000MHz E2



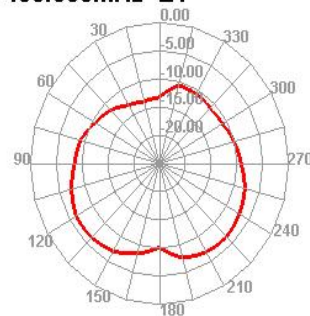
450.000MHz



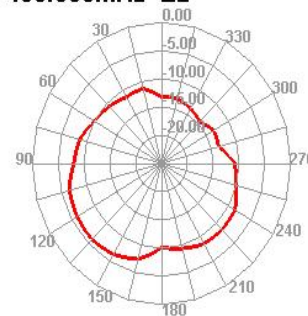
450.000MHz H



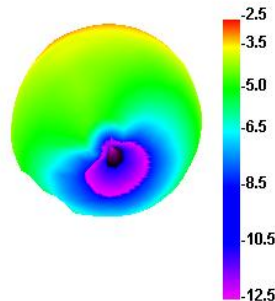
450.000MHz E1



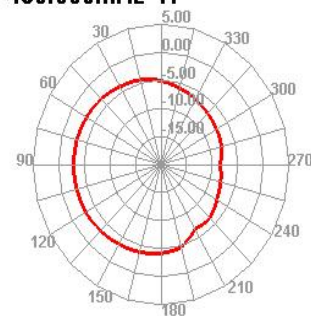
450.000MHz E2



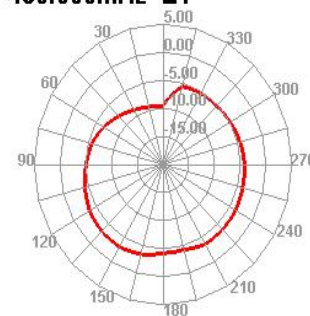
480.000MHz



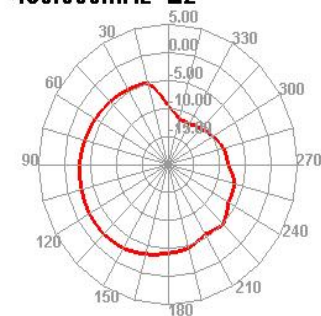
480.000MHz H



480.000MHz E1



480.000MHz E2



6.Reliability Test

Test Item	Test condition	Equipment	Specification	Result
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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.&Humidity 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.&Humidity 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: $35 \pm 2^\circ\text{C}$ Humidity: 85% NaCl salt spray: $\pm 1\%$. PH value: 6.5~7.2 Testtime: 24 hours	Salt-Spray Tester	No color change No appear rusting	PASS

7.Assembly type(Omit)

8.Product Drawing

