



Lejin RF

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

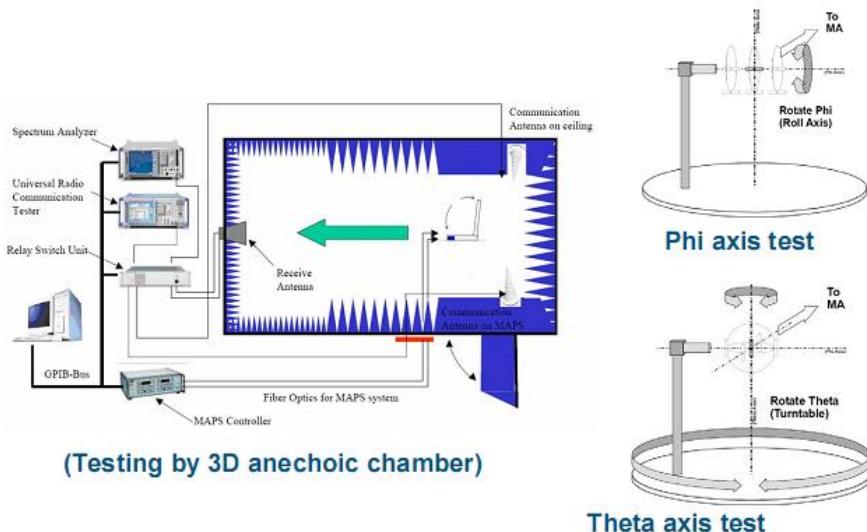


Chart 1 Test topology

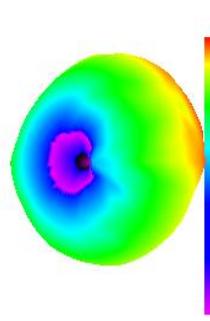
5. Test Report

5.1 Efficient and gain.

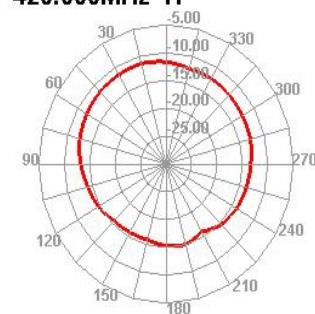
Passive Test	Freq(MHz)	420	430	440	450	460	470	480	490
	Effi(%)	12.85	18.11	28.21	19.75	22.79	23.31	23.48	23.23
	Gain(dBd)	-4.38	-4.27	-2.77	-3.32	0	-2.88	-2.66	-2.36

5.2 Radiation pattern.

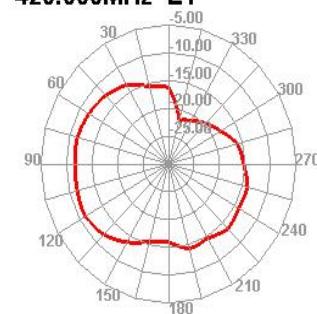
420.000MHz



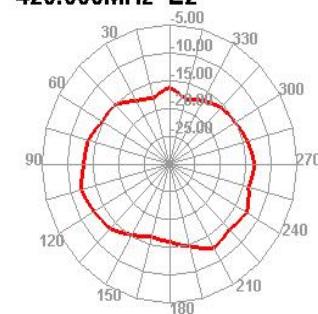
420.000MHz H



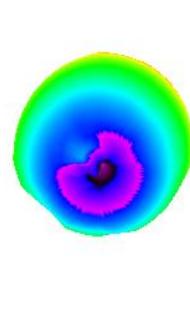
420.000MHz E1



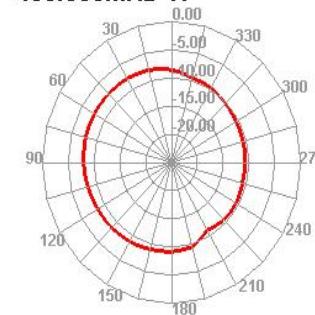
420.000MHz E2



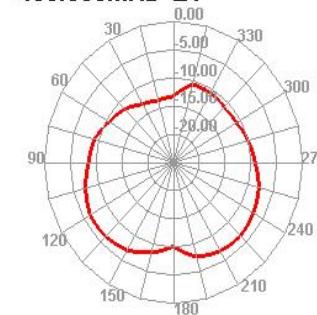
450.000MHz



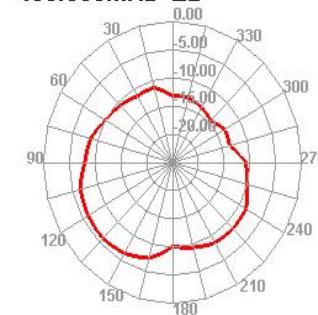
450.000MHz H



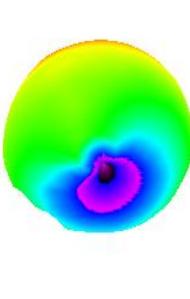
450.000MHz E1



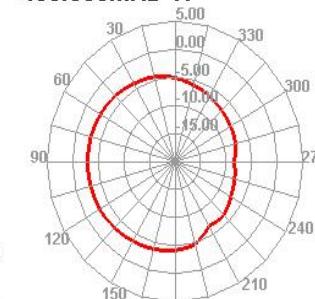
450.000MHz E2



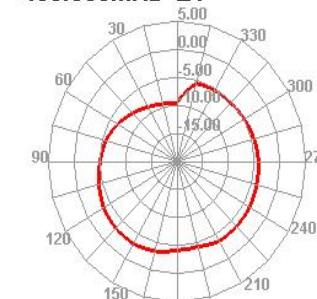
480.000MHz



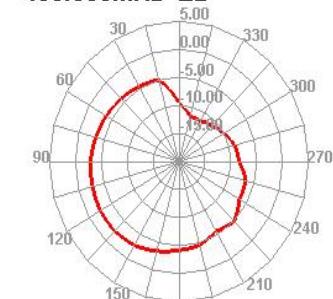
480.000MHz H



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°C , Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25 °C and humidity is 65% for one hour, then step-down the temp. to -30 °C in one hour, store antenna for44 hours; step-up temp to 25 °C ,test antenna after 2 hours.	Temp.&Hum i. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
2	High Temp./High Humid Storage Test	Temperature: 85°C Humidity: 85% RH Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25 °C and humidity is 65% for one hour, then step-up the temp. to 80 °C and the humidity up to 85% in one hour, store antenna for 44 hours; step-down temp to 25°C,test antenna after 2 hours.	Temp.&Hum i. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
3	Salt-Spray 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 :5 $\pm 1\%$.PH value :6.5~7.2 Testtime:24hours	Salt-Spray Tester	No color change No appear rusting	PASS

7. Assemble type(Omit)

8. Product Drawing

