Shenzhen Lejin radio frequency technology Co., LTD

SPECIFICATIONS FOR APPROVAL

Customer Name:

Product Name: 433M Antenna

Product Model: IP06

Part Number: LJS062201A

Write By : Huxuwen

Issued Date: 2022-03-29

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	2022/03/29	

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3.Product Specification

A. Electrical Characteristics	
Frequency	433.92MHz±10.0MHz
VSWR	<2.0
Efficiency	⩾15%
Impedance	50Ohm
Polarization	Linear
Gain	⩽-2.88dBi
B. Material & Mechanical Characteristics	
Material of Radiator	Metal(Carbon steel)
Cable Type	N/A
Connector Type	Soldering(Φ0.5mm)
Dimension	Φ4.0*22.0mm
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

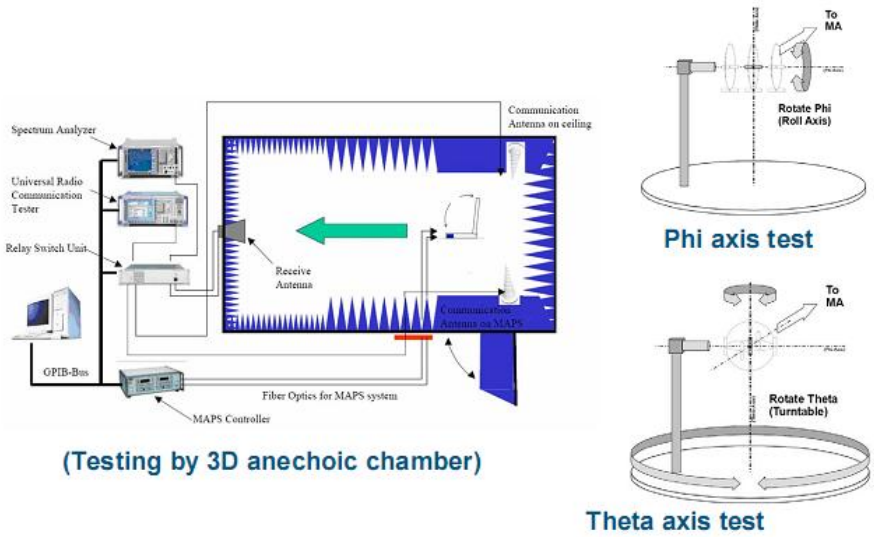

Chart 1 Test topology

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5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

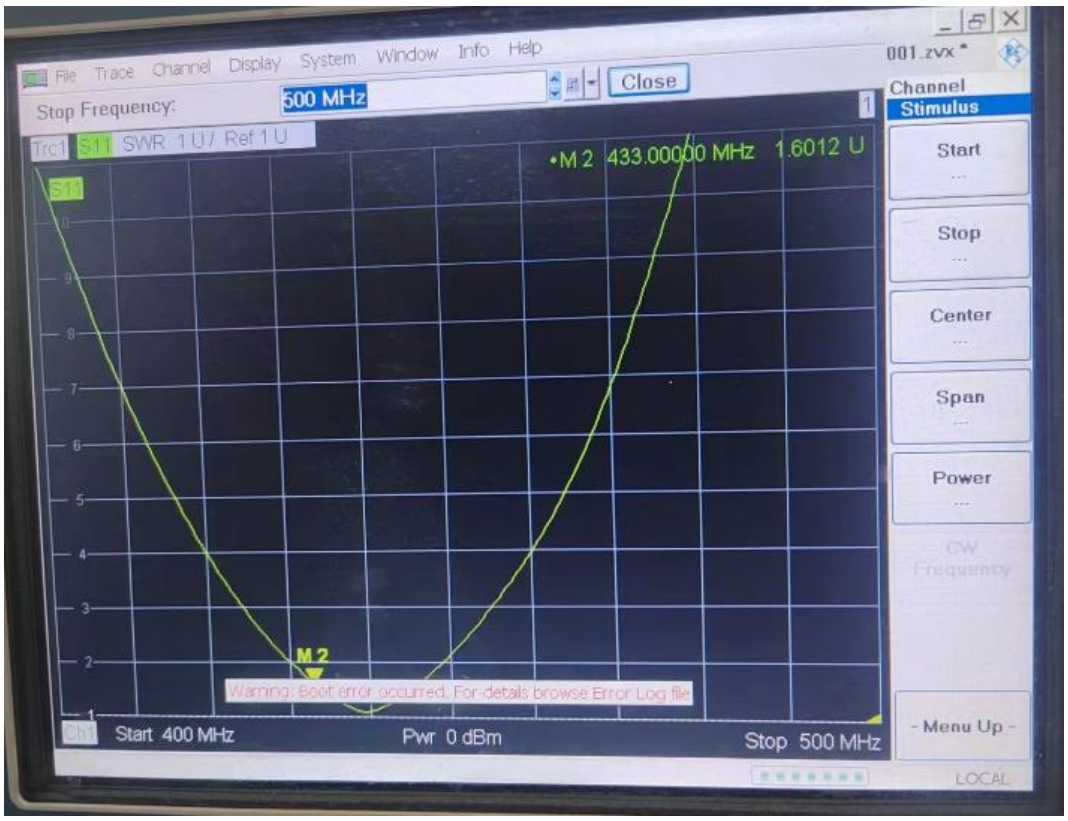
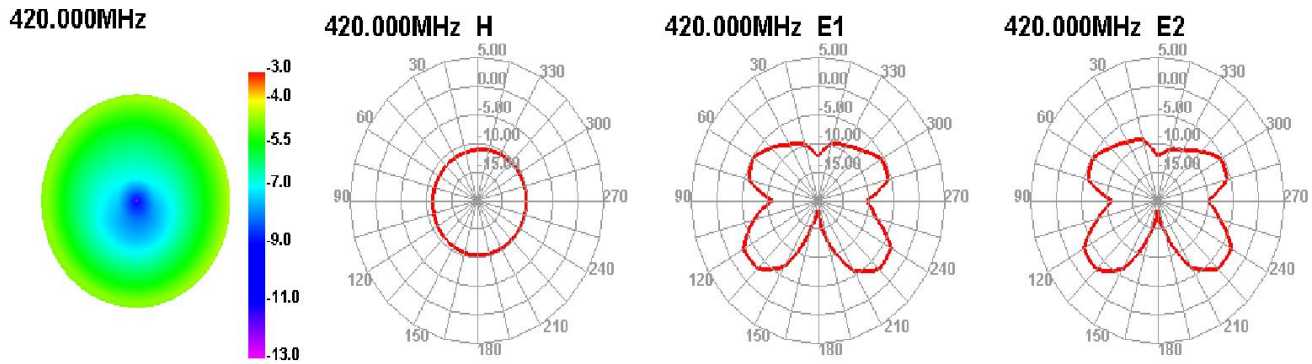


Chart 2 VSWR

5.2 Efficient and gain.

Passive Test	Freq(MHz)	410	420	430	440	450
	Effi(%)	17.77	20.12	22.01	18.75	15.21
	Gain(dBi)	-3.58	-2.98	-3.37	-2.88	-3.68

5.3 Radiation pattern.



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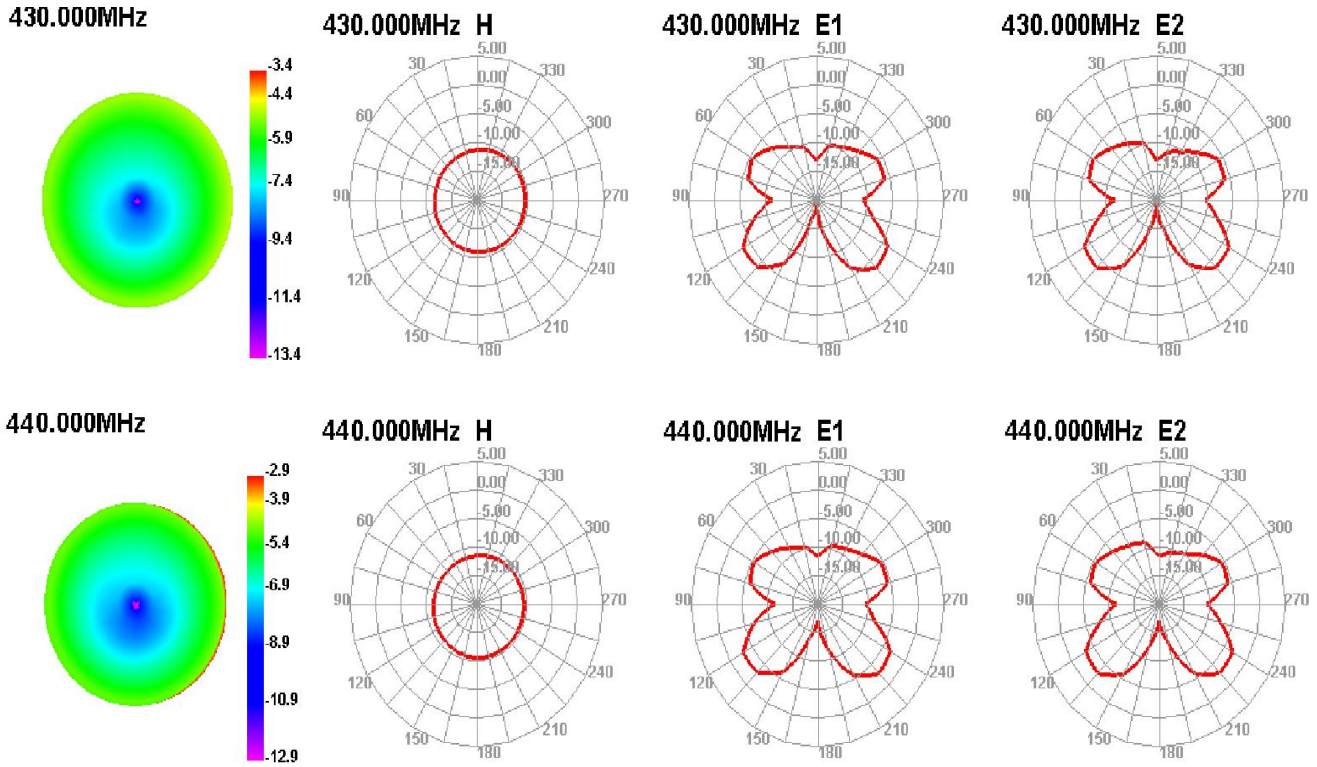

6.Reliability Test

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(omit)

8.Product Drawing

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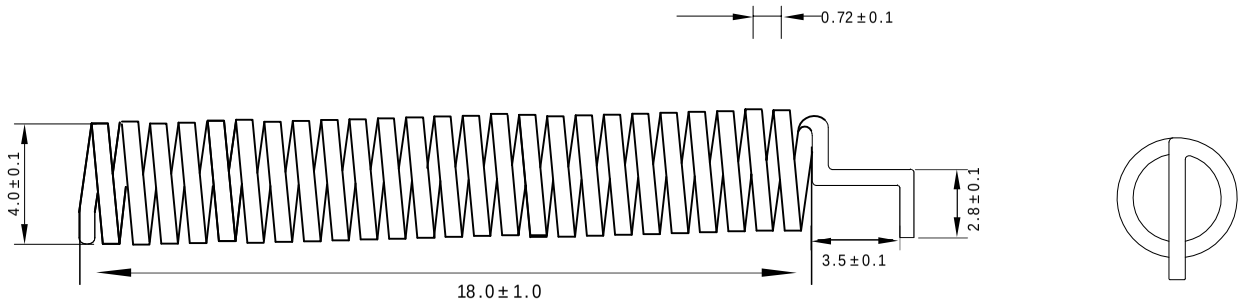
RoHS
Compliant
G P



Revise record				
	1			
	2			
	3			

SHEN ZHEN LEJIN RADIO FREQUENCY CO.,LTD

Third Angle				Project		Date	2023-03-13		
0～10	±0.05	○	0.02	Part Name	433M ANT	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	Treatment	LJS062201A	Approved by			
40～	±0.20	Angle	±0.5°			Unit mm	Scale FIT	Rev A	
Location									

Rev	Description	Date	Remark
A	New drawing		