

# Antenna componentst

频率范围 Frequency range	板载天线:(433.925MHz)
天线增益 ( Antenna Gain)	0.9dBi
输入阻抗 Input Impedance	50 ( $\Omega$ )
极化方式 Polarization	垂直极化 Vertical Polarization
半功率波束 (3dB) HPV	180° H-plane 120° E-plane

## 1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the 433MHz 天线 program.

## 2 General Description

### 2.1 Components/Part revisions

VSWR: Voltage Standing Wave Rate.

## 3 Mechanical Description

## 4 Electrical Performance

### 4.1 Set-up

#### 4.1.1 VSWR

VSWR measurements (S11) were performed using an Agilent 8753D Network Analyzer and the previously described test fixture. Coaxial chokes were used to mitigate surface currents on the outside of the cabling. The testing was performed in free space.

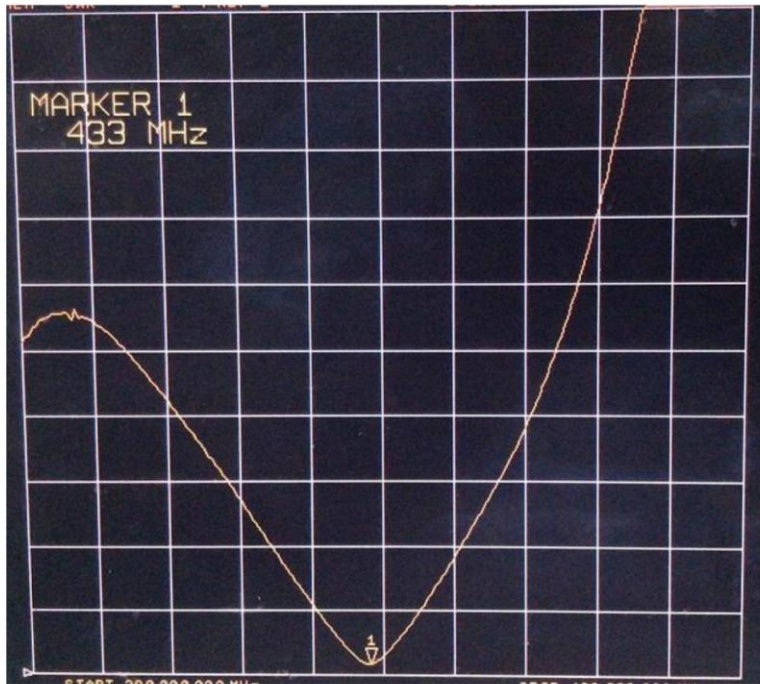
#### 4.1.2 Gain & Radiation Patterns

The gain of the antenna was measured in the Lxc's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than -30 dB reflectivity from 800 MHz through 3 GHz and an 18" diameter spherical quiet zone. The measurement results are calibrated using both dipole and leaky wave horn standards.

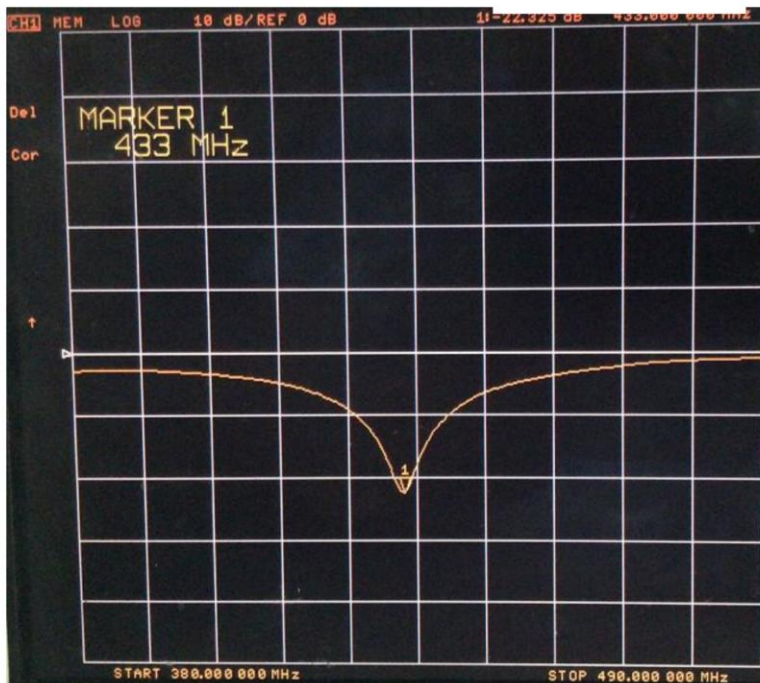
Date: 2023-8-28		Pa	File Name:
TEST:	Language:		
A	English		

## 4.2 Plots

### 4.2.1 VSWR

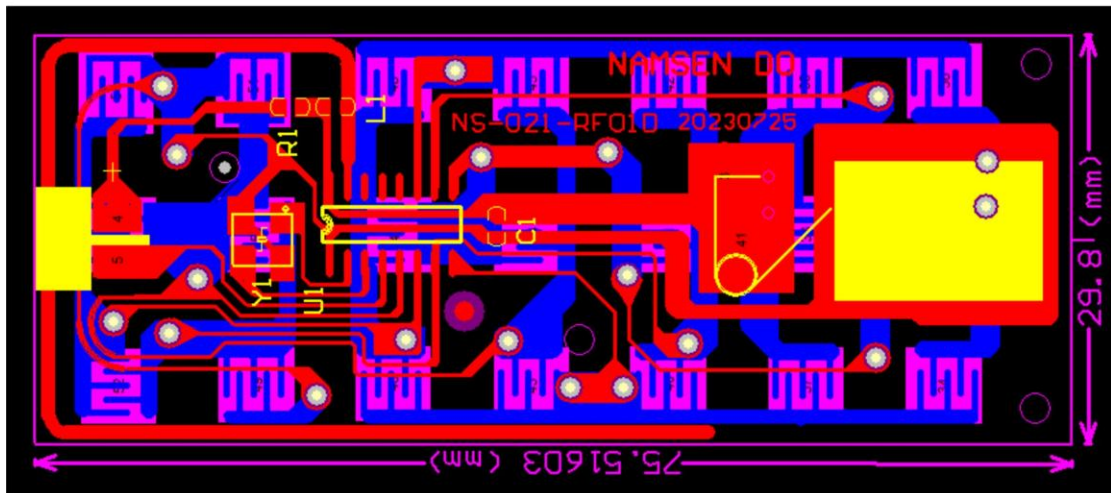


### Return loss



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TEST: A	Language: English	

## 6 Mechanical drawing



## 7 Reliability tests

### 7.1 Test content

No	试验项目	试验方法	判定基准
1	盐水喷雾试验	把盐浓度 5%的溶液喷雾 48HR	不能有变色, 歪 (变形) 脱落等的缺点 腐蚀面积不能过大

### 7.2 Test results

NO	样品数	试验期间	实验结果	备注
1	50	24 小时	<b>OK</b>	技术等级为 9 级 腐蚀<0.4mm
2	50	48 小时	<b>OK</b>	技术等级为 9 级 腐蚀<0.4mm

## 8 Conclusion

From the above test results, we can know the electrical performance of the antenna is seems good.