

Shenzhen Xinshuqiang Innovation Technology Co . Ltd

深圳市新树强创新科技有限公司

APPROVAL SHEET

For

深圳市鸿毅自动化科技有限公司

433MHz -弹簧天线 project

Antenna componentst

频率范围 Frequency range	弹簧:(433MHz)
天线增益 (Antenna Gain)	0dBi
输入阻抗 Input Impedance	50 (Ω)
极化方式 Polarization	垂直极化 Vertical Polarization
半功率波束 (3dB) HPW	180° H-plane 120° E-plane

RF by	朱永建	Checked by	王金科
ME by	唐红交	Date	2021/11/30
Customer Confirm			

		Author:Wang	File Name: 433MHz -弹簧- 天线
Date: 2021-11-30			
TEST:	Language:	Check: Zhong	
A	English		
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Revision History

Date	Revision	Description of Changes
2021-11-30	RA	Measured with FPC sample.

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1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the **433MHz 天线** program. We test the antenna with the latest version handset. And it seems to be acceptable.

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.

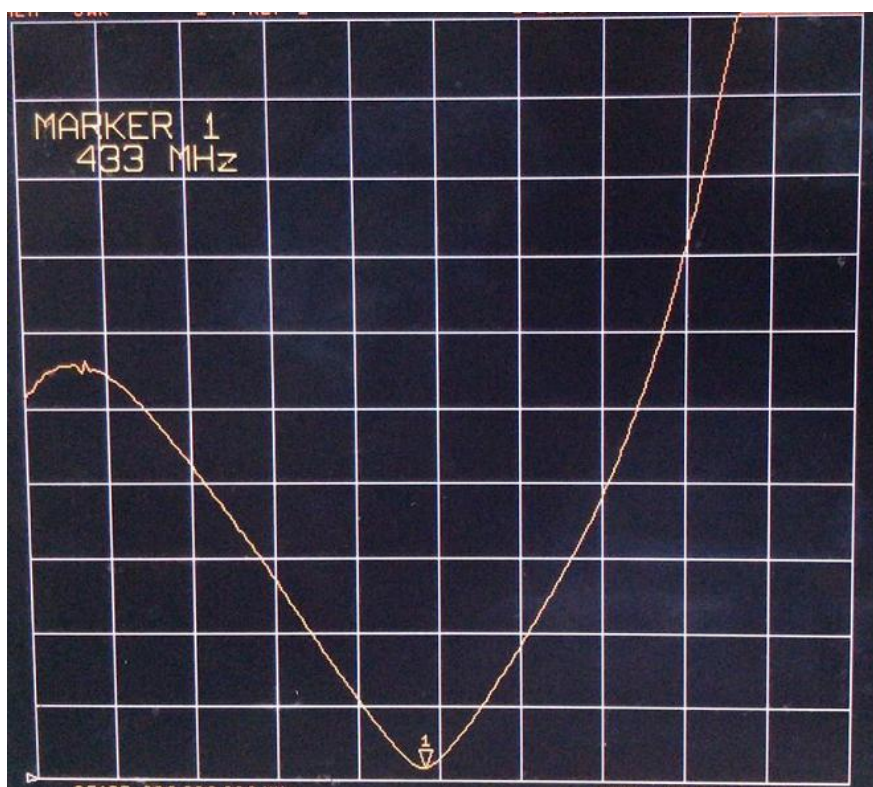
4.1.2 Gain & Radiation Patterns

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.

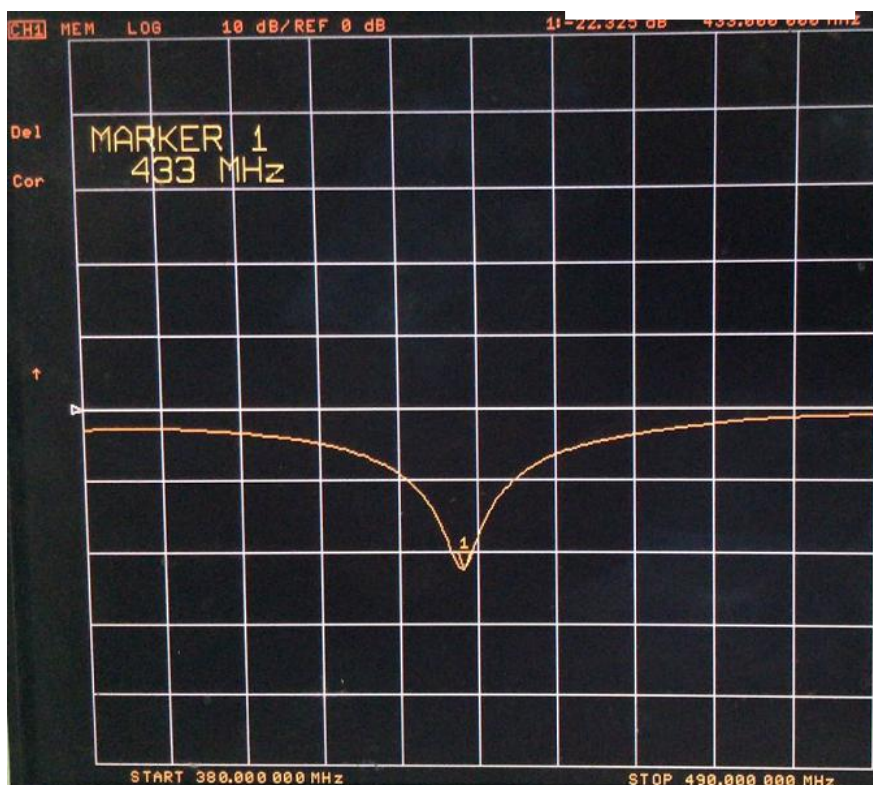
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4.2 Plots

4.2.1 VSWR



Return loss



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6 Mechanical drawing

标记	名称	修改内容	日期

备注:

1. 标注“*”为重点尺寸, 未标公差尺寸按照 ± 0.15 检测
2. 未标注尺寸请依图纸。
3. 符合ROHS2.0
4. 铜, 线径0.6MM, 节距0.55MM

第三版				日期			
0~3	±0.05	Φ	0.05	设计	2021-11-30		
3~30	±0.05	○	0.05	审核	10	更改	
30~50	±0.10	◎	0.10	产品	10		
50~80	±0.15	⊕	0.15	材料	弹簧		
80~100	±0.20	⊕	0.20	单位	mm	比例	1:1
100~150	±0.25	⊕	0.25	版本			A.1

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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	OK	技术等级为 9 级 腐蚀<0.4mm
2	50	48 小时	OK	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.

Shenzhen Xsq xc Innovation Technology Co ., Ltd ,look forward to your confirmation, thank you for your cooperation !

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