

# **433MHz Antenna specification**

**Huizhou Longji Electronics Co., Ltd**

**Approval Sheet Form**

**433MHz Antenna series**

## characteristic

1. The size of the antenna is only 46x21 mm.
2. Low energy loss and high antenna efficiency.
3. It has high stability under the condition of temperature and humidity change.

## application

1. 433MHz band antenna application
2. Sub-1g 433MHz band antenna application



actual picture

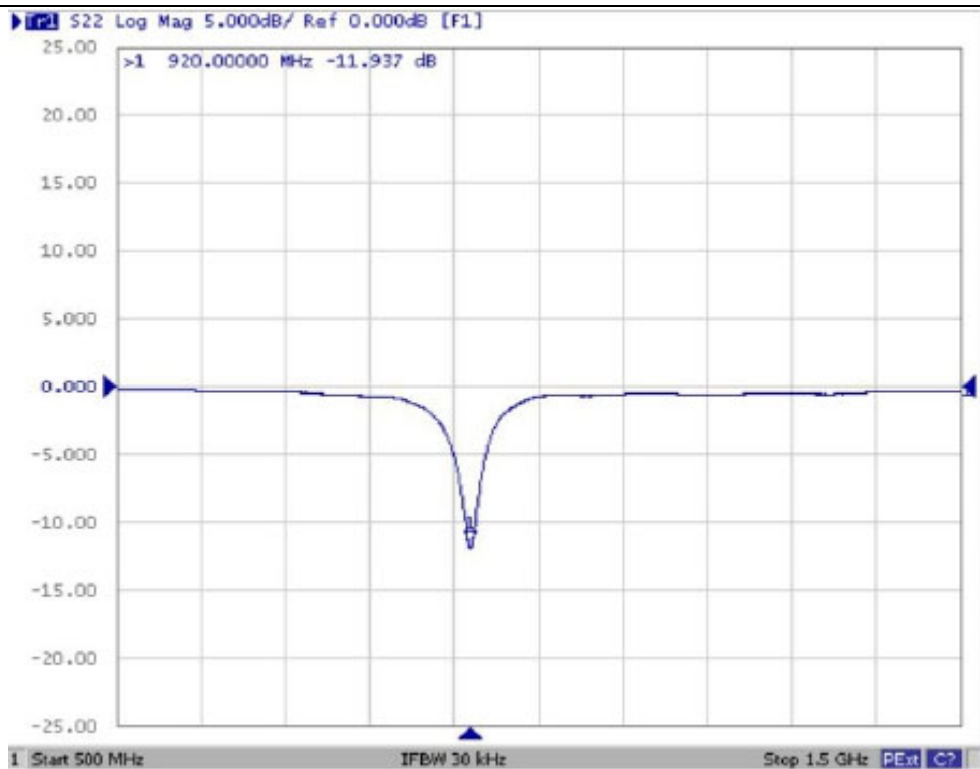
electrical specification

	Specification
工作频率范围 Working Frequency	423Mhz-443Mhz
初始频段(GHz)	433MHz
阻抗 Impedance	50Ω
增益 Gain(dBi)	2.2
驻波比 VSWR	<2
工作温度 Operation Temperature	-20℃~+85℃
可承受功率 Power Capacity	W

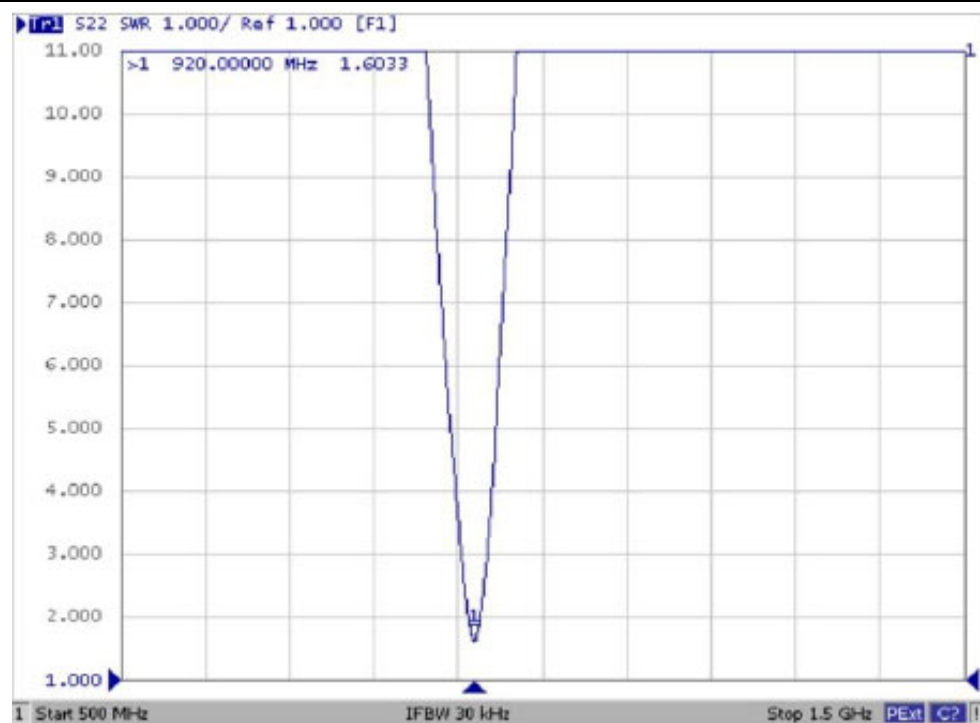
The working frequency of antenna needs to be realized by debugging impedance matching devices.

Antenna pad and trace design

### Antenna S11 characteristics



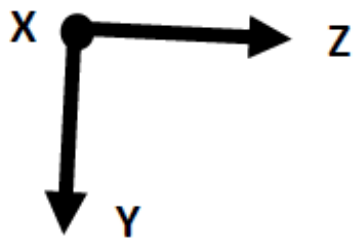
### Antenna VSWR characteristics



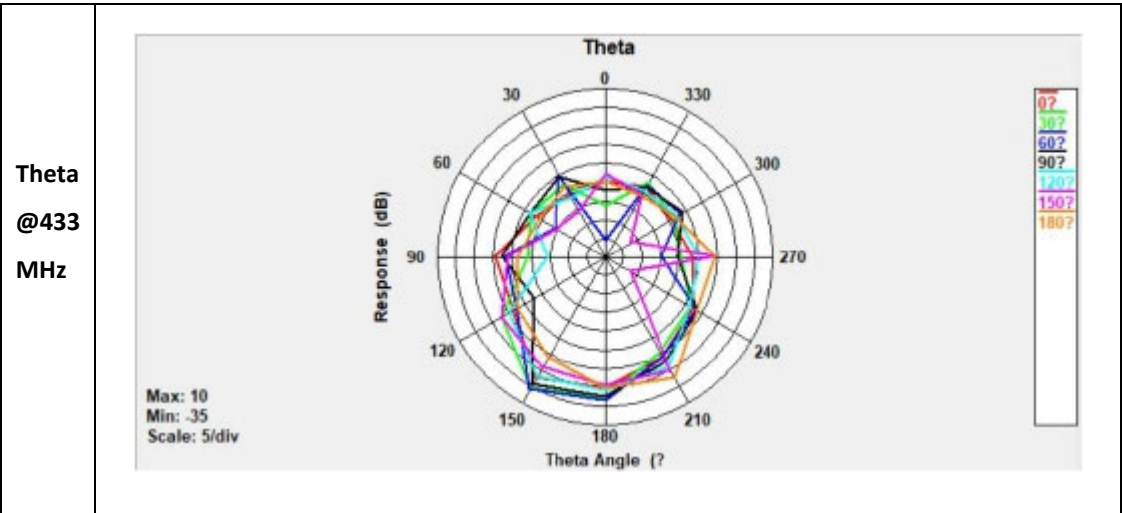
Efficiency and radiation maps

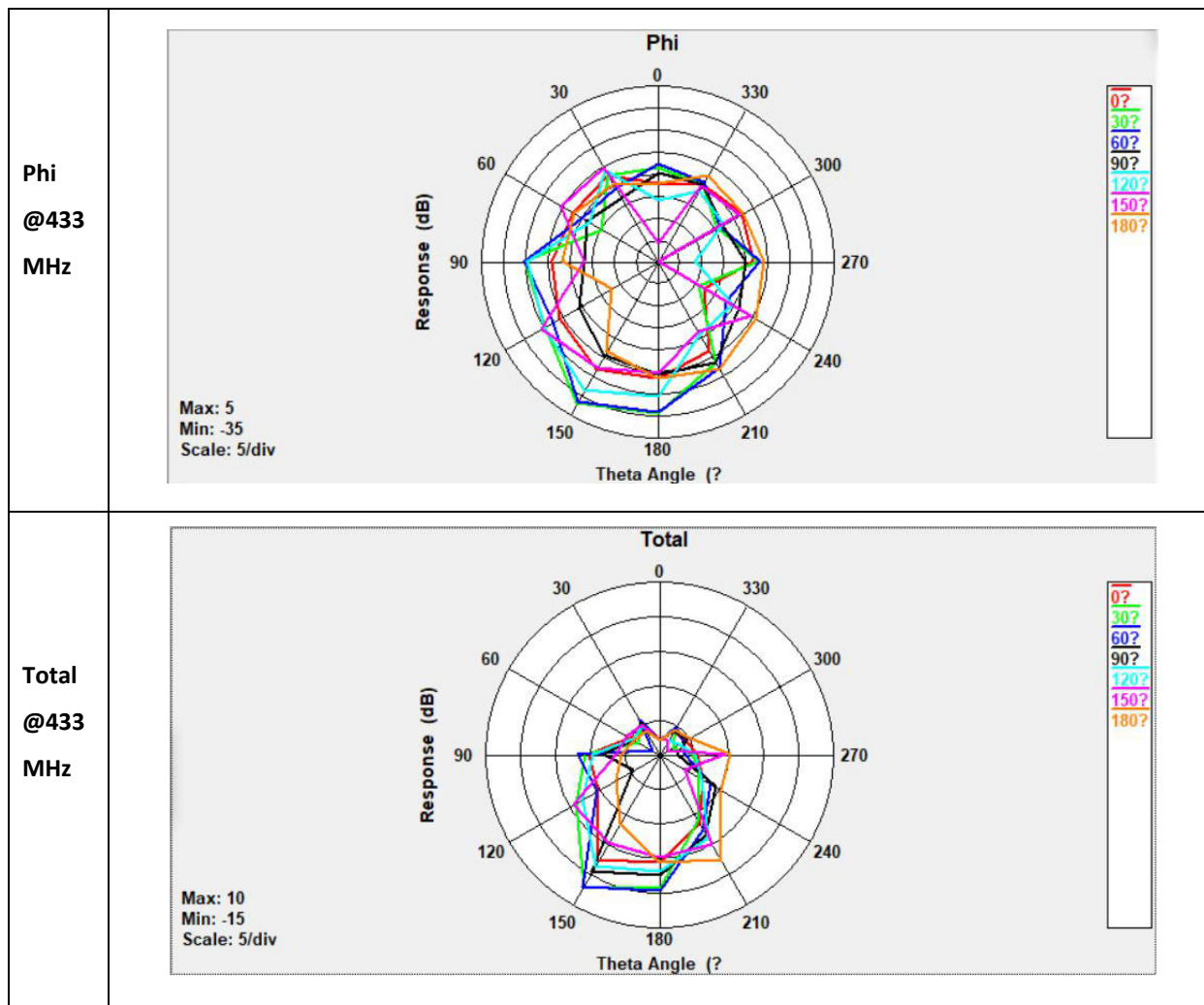
Efficiency, radiation pattern, gain and other performance are based on the test plate design of NS-021-RF01-002 antenna specification characteristics test data are.

Based on the test PCB board size and the test direction shown in the figure below. The following data were tested in ETS 3D microwave darkroom.



Gain and efficiency	bandwidth 423-443mhz
Peak Gain	2.2dBi
Average Gain across the band	1.6dBi
Gain Range across the band	0.2dBi~2.2dBi
Peak Efficiency	39.5%
Average Efficiency across the band	28.7%
Efficiency Range across the band	12.3%~39.5%





Welding condition

Typical welding specifications for reliable and nondestructive welding are shown below

