SPECIFICATION

915MHZ(弹簧)天线

Antenna Specification

Product name	915MHz Antenna		
Product model	**6.129-1801741-00**	Ver	A2
Manufacturer	Zhejiang Bernal Electric Co., Ltd		
Address: No. 188, Punan 5th Road, Economic Development Zone, Yueqing City, Zhejiang Province			
R F Test	Kets Wei		
Design	XiaoXia		
Approved	Lei	DATA	**2023-07-05**

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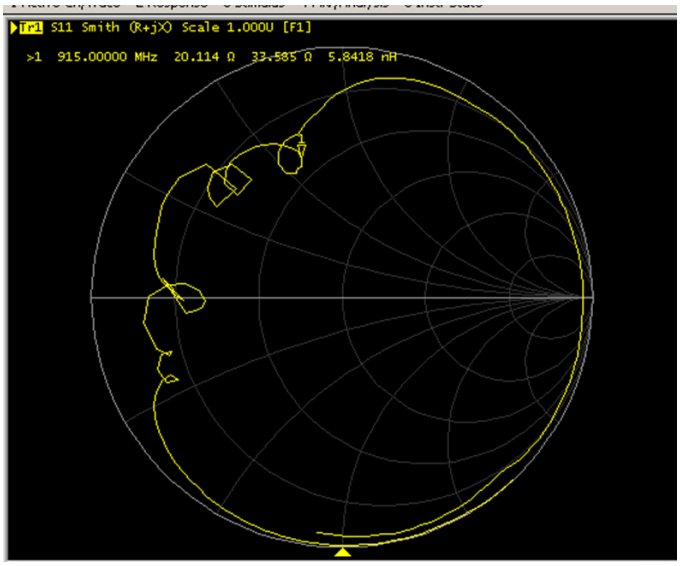
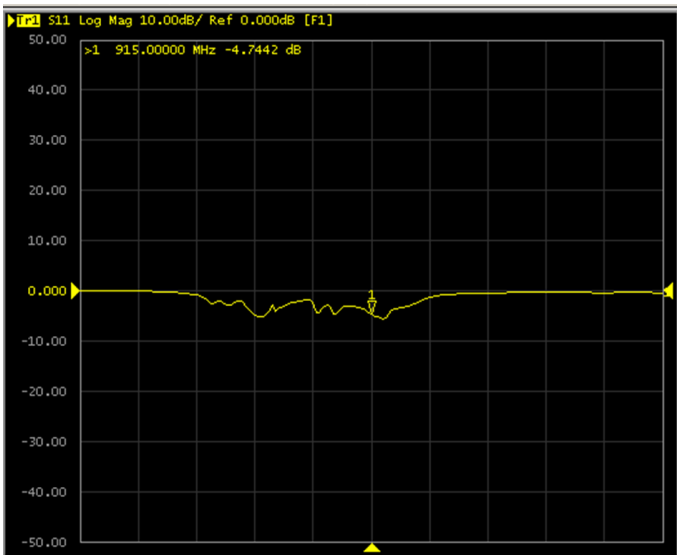
1. Antenna Picture

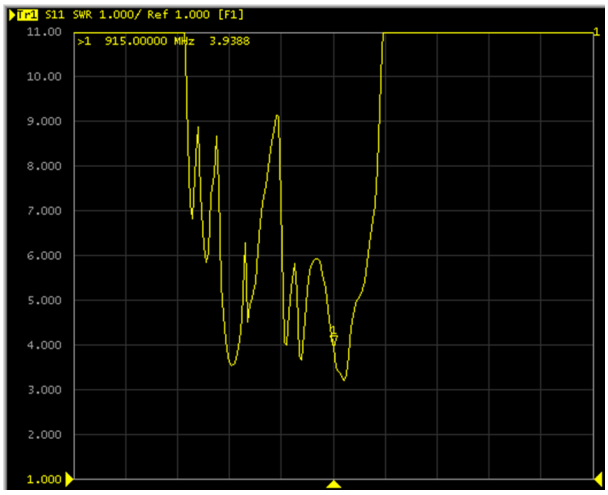
2. Antenna Parameters

Parameters			
产品名称(Name)	915 Antenna	产品型号(Model Type)	6.129-1801460-00
电 性 能 指 标 (Electrical Specifications)			
频率范围 (Frenquency Range)	915MHz	极化方式 （Polarization）	垂直(Vertical)
输入阻抗(Impedance)	50 Ω	辐射方向	All directional
驻波比（VSWR）	≦4.0	功率容量(Power)	1W
增益(Gain)	-4.74dBi	带宽 (Bandwidth)	1Mhz
机 械 指 标 (Mechanical Specifications)			
尺寸 (Dimensions)	17.5mm	天线颜色(Chassis Color)	Brass
连接器型号 (Connector)	焊接(Solder)		
天线材料 (Chassis Material)	黄铜(Brass)		
工作温度 (Working Temperature)	-40℃-+85℃	存放温度 (Limit Temperature)	-40℃-+85℃

3. Antenna S11



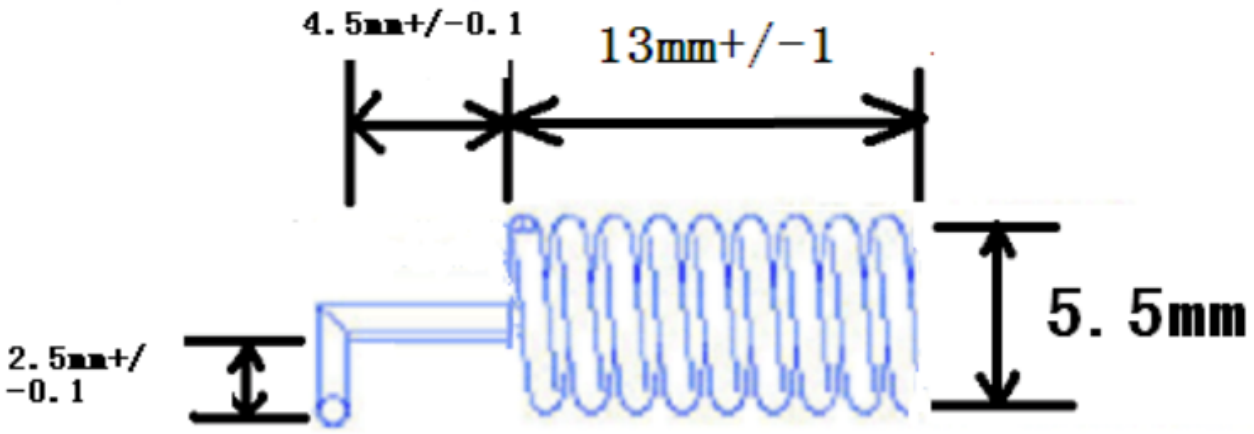




4. Antenna Gain

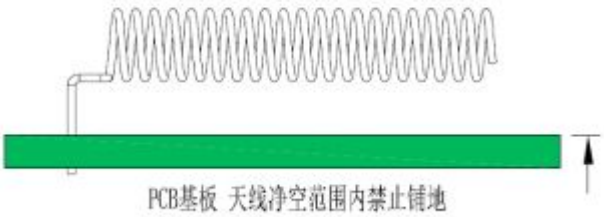
915MHZ		
Freq (MHz)	Effi (%)	Gain (dBi)
915	27.8%	-4.74

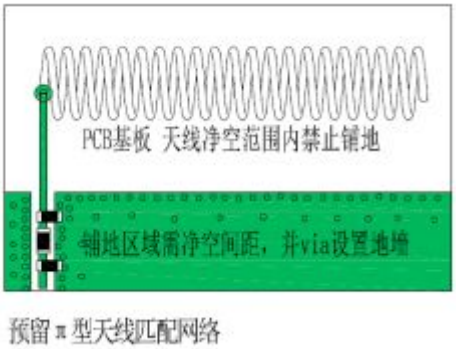
5. Antenna Dimensions



弹簧线径：0.8mm, 圈数：9.25圈

6. Antenna Design Apply





Note: In the antenna design process, it is necessary to combine the product shape structure, the position of the RF module signal input and output interface, and the location of the interference source inside the product to determine the placement position, angle, spacing from the floor, height from the PCB substrate, etc. Reserve a π-type network to match the antenna, and be sure to provide a complete set of product shells and internal PCBA function boards when debugging the antenna, and calculate the external interference sources and parasitic capacitance into the matching, so that the antenna can achieve the best performance indicators and work efficiency. The image on the left is a side view and the image on the right is a top view. The PCB trace reference of the matching network is 0.5mm line width, and the floor reference on both sides of the network is 0.35mm spacing to maintain good impedance characteristics.

7. Test Condition

Test Item	Test conditions	Specification
Storage environment	The temperature, humidity, and barometric pressure are tested without specifying as follows: 1. The temperature is -30° C~+80° C 2. Relative humidity is 45%-85% 3. he air pressure is 86kpa-106kpa	Normal electrical and mechanical properties
High and low temperature test	5 cycles between 70 ° C and 40 ° C, then under normal conditions 1-2H, check the appearance quality.	The dimensions shall meet the regulations and shall meet the requirements In mechanical and electrical properties
Constant humid heat	Relative humidity 95±3%, test temperature: 40 °C. After continuous 2H action, the electrical properties are measured within 5min after the sample is taken out, and the sample is 1-2H under normal conditions to check the appearance quality	The dimensions shall meet the regulations and shall meet the requirements In mechanical and electrical properties
Vibration test	Vibration frequency range: 10-55HZ, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M/s, frequency sweep cycles: 30 times	Normal electrical and mechanical performance
Drop test	Free fall 3 times from a height of 1M in mutually perpendicular axial directions	Normal electrical and mechanical performance