TXWF-PCB-5109 Antenna User Manual

2.4G/5.8GHz FPC Antenna

IPEX Interface , 2dBi Gain



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1. Introduction

TXWF-PCB-5109 is a 2.4/5.8G dual-band FPC built-in antenna, the antenna size is 37*10mm, the feeder length is 120mm, with IPX 1 generation interface, suitable for various 2.4/5.8GHz wireless modules, network equipment, etc. Band wireless equipment.

Electrical parameters	
Center frequency	2.4/5.8GHz
Antenna bandwidth	2.4-2.5G/5.15-5.8GHz
Antenna gain	2dBi
Voltage standing wave ratio	≤1.5
Polarization direction	Linear polarization
Radiation direction	Omnidirectional
input resistance	50Ω
Power Capacity	2W
Hardware Parameter	
Product Size	51mm*9mm
Overall weight	1g
Antenna material	PCB
Feeder length	120mm (can be customized)
Interface method	IPX 1st generation
Operating temperature	-40℃～+85℃
Storage temperature	-40℃～+85℃

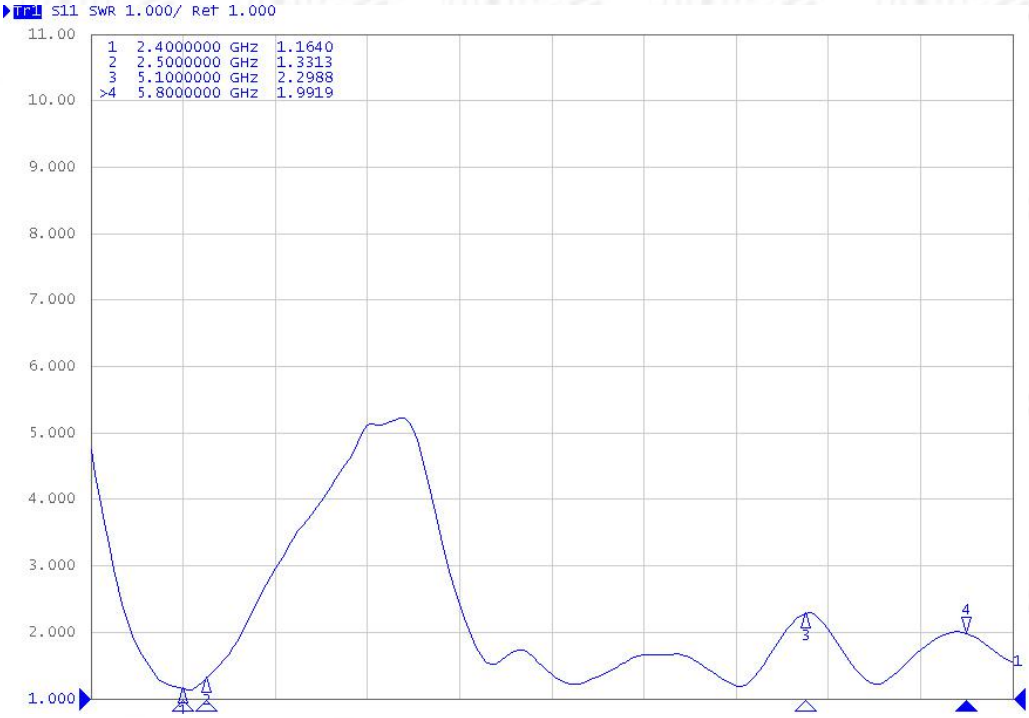


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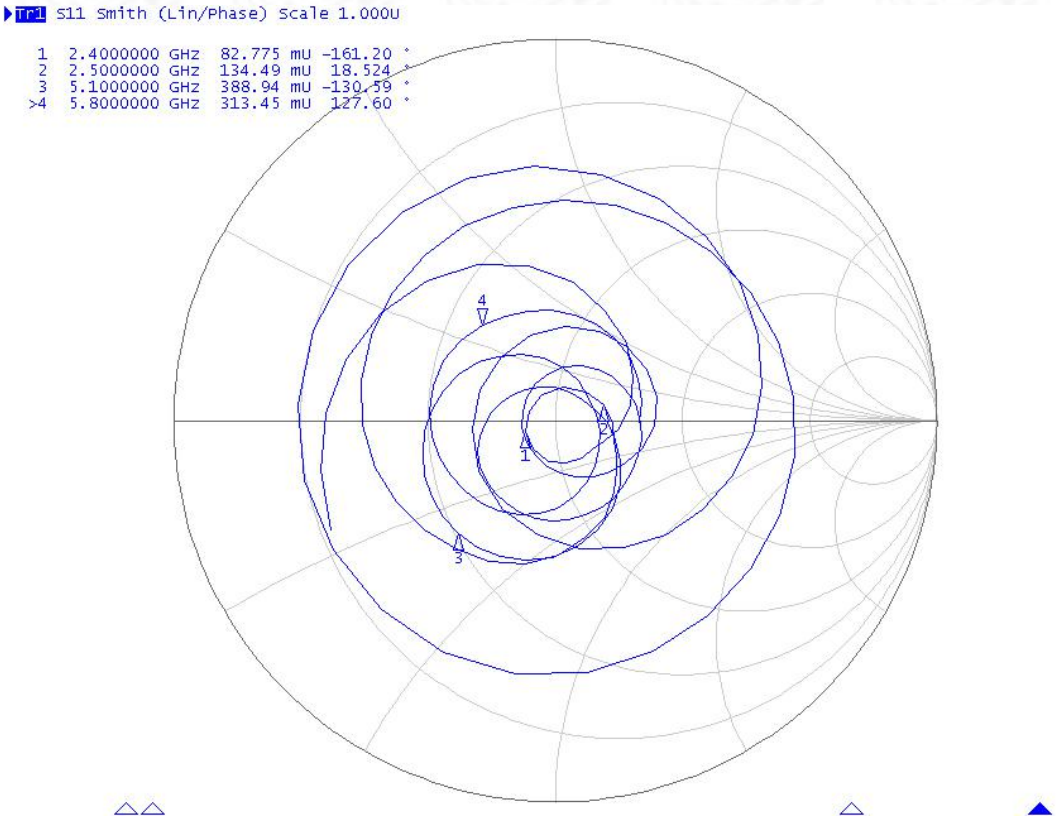
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2. Antenna Features

VSWR Chart



Smith chart



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3. FAQ

- The antenna frequency must match the frequency of the wireless device, otherwise the communication effect will be poor;
- The lower the communication frequency and the longer the wavelength, the better the diffraction performance;
- When there is a straight line communication obstacle, the communication distance will be attenuated accordingly;
- Please pay attention to the antenna radiation direction, the incorrect installation direction of the antenna leads to a short transmission distance;
- The ground absorbs radio waves, and the test result near the ground is poor. It is recommended to increase the height;
- Sea water has a strong ability to absorb radio waves, so the seaside test results are not good;
- If there is a metal object near the antenna or placed in a metal shell, the signal attenuation will be very serious;
- The poor impedance matching between the antenna and the communication device will lead to poor communication effects.

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