

Antenna Specification

Antenna overview

1. Antenna Type and Model:

Type: PCB Antenna

Model: PIFA Antenna

2. Gain: about 3.22dBi (peak)

3. Antenna Directivity Coefficient: about -1 @2400MHz

4. Antenna Polarization characteristic: elliptical polarization

5. Inside or outside: Inside

6. Name of Manufacturer: Shenzhen Bailihe Technology Co. LTD(深圳市百里和科技有限公司)

7. Name of Laboratory: Shenzhen Bailihe Technology Co., LTD (深圳市百里和科技有限公司)

PIFA Antenna

The mouse antenna adopts the ultra-small PIFA antenna, and because of the limited area of PCB, the gain of antenna will be smaller than that of the other antennas. The communication distance can reach about 15 ~ 20 meters. The size of the mouse Module PCB antenna is 12 * 3.0mm, and the thickness of PCB is 1.6mm. The specific size of the antenna is shown in figure 1, the physical object is shown in figure 2.

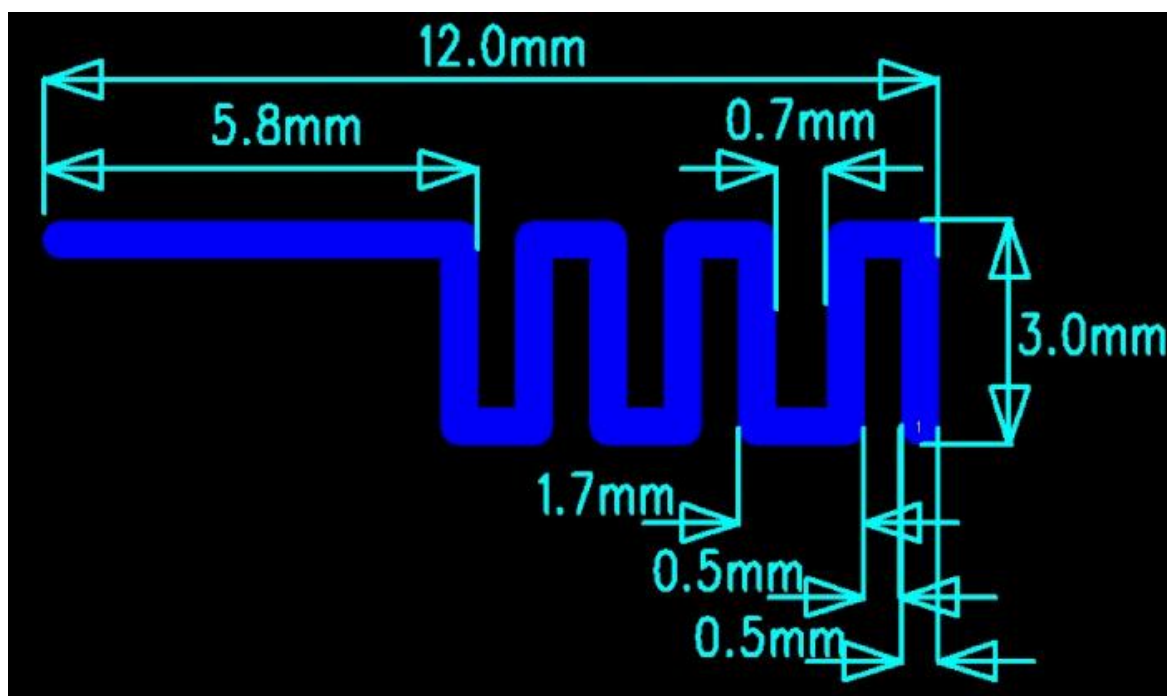
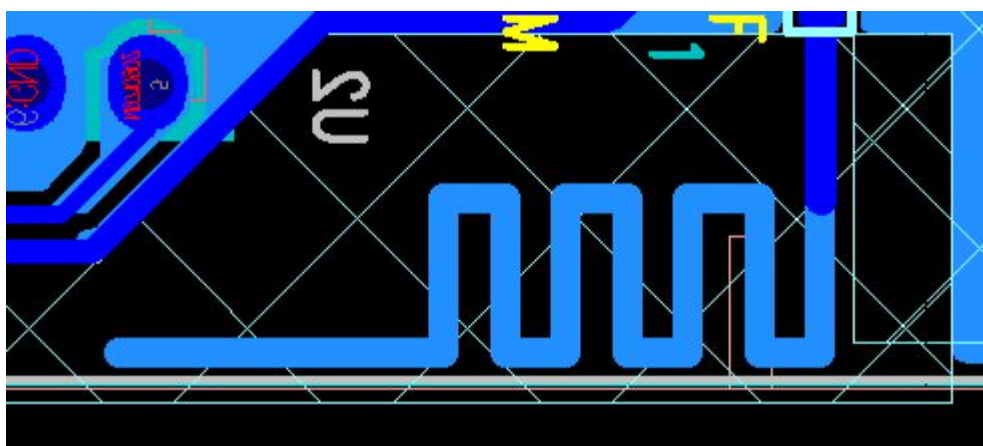


Figure1 Antenna size



Applicant:	Homer Tech Inc.
Address:	405, Caihuang Complex Building, Caihuang Industrial Park, No. 6, Qinghu Guanning Road, Longhua Street, Shenzhen
Equipment Type:	PCB antenna
Model Name:	Mini Meander Line antenna
Brand Name:	HomerTech

Test Standard: ANSI/IEEE Std 149-1979

Test Date: Oct. 10, 2022

Date of Issue: Oct. 13, 2022

Figure2 Antenna

The gain simulation data of the antenna is shown in figure 4



Number	Brand	Value
L1		0.5pF

The antenna's S11 test data is shown in figure 3, covering the entire 2.4 G frequency band.



Figure3 Antenna S11

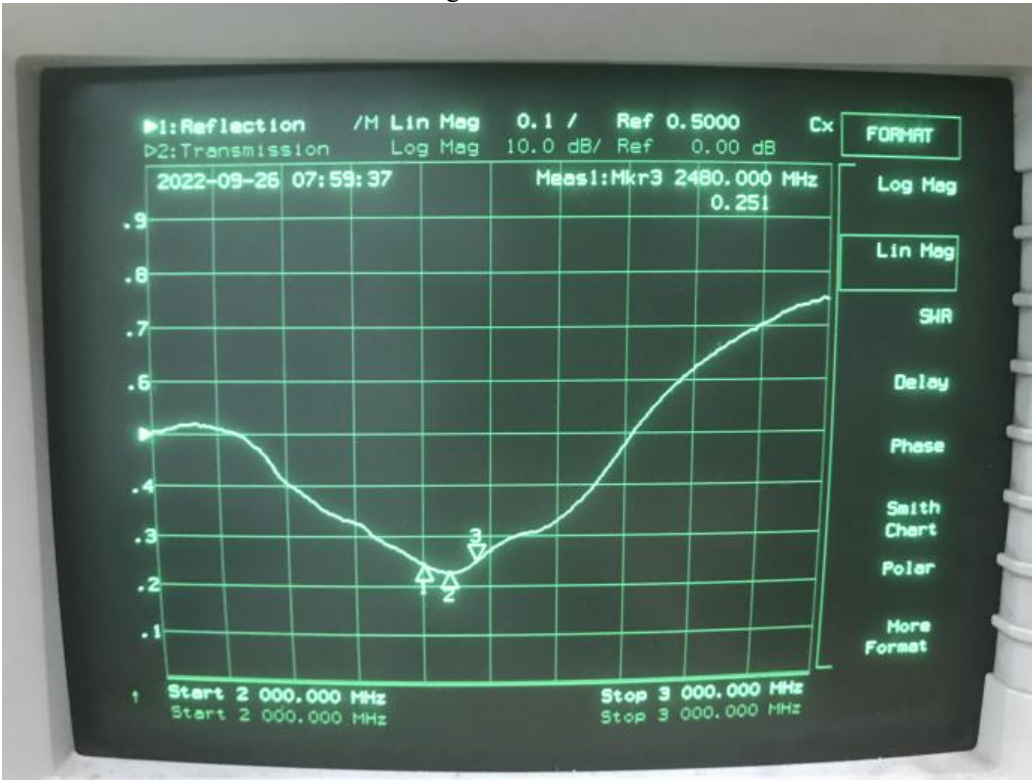
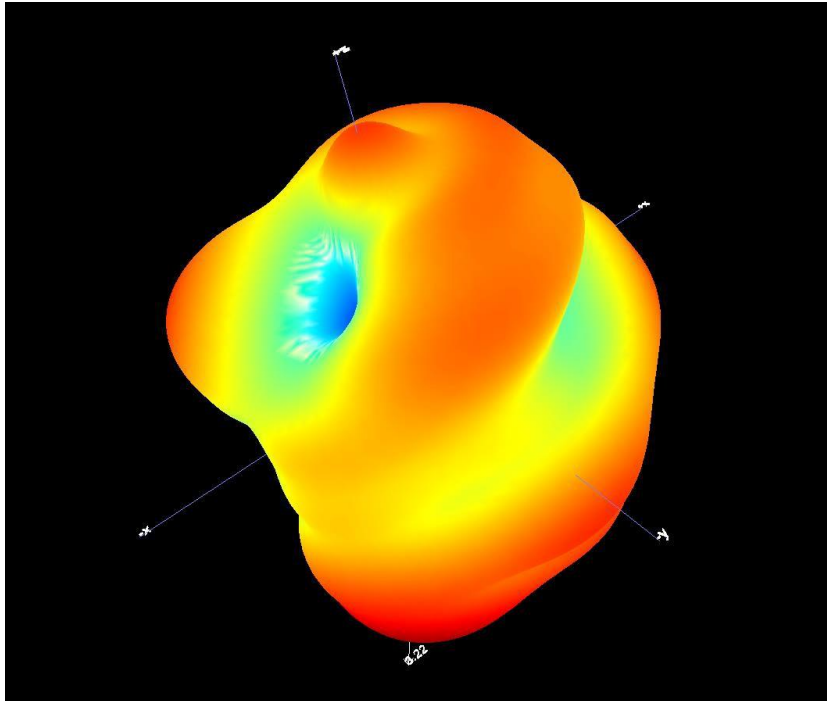


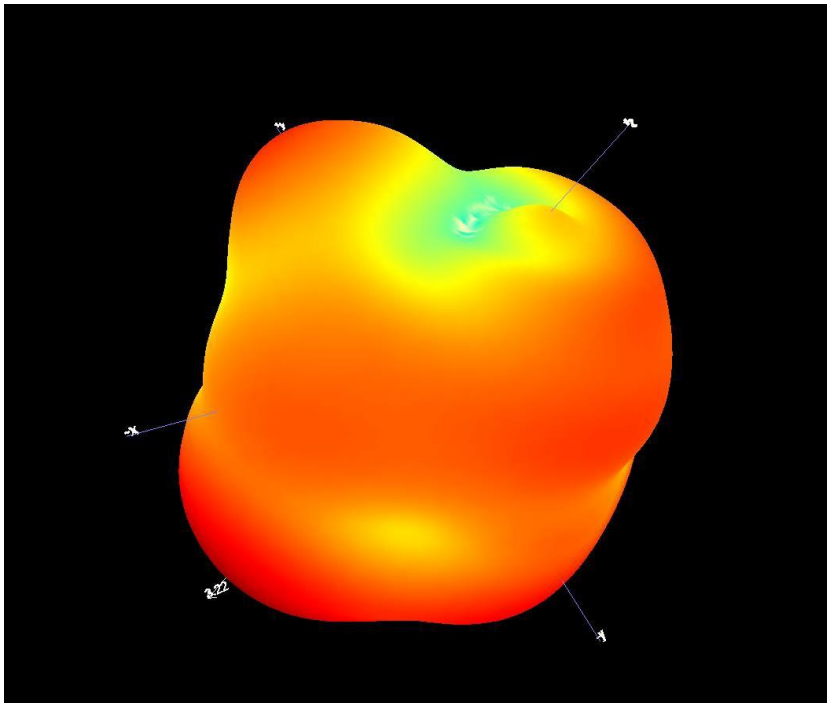
Figure 4 Antenna S11

The gain simulation data of the antenna is shown in figure 5, with the maximum gain of 3.22dbi.

3D Pattern for 2400MHz



3D Pattern for 2450MHz



3D Pattern for 2500MHz

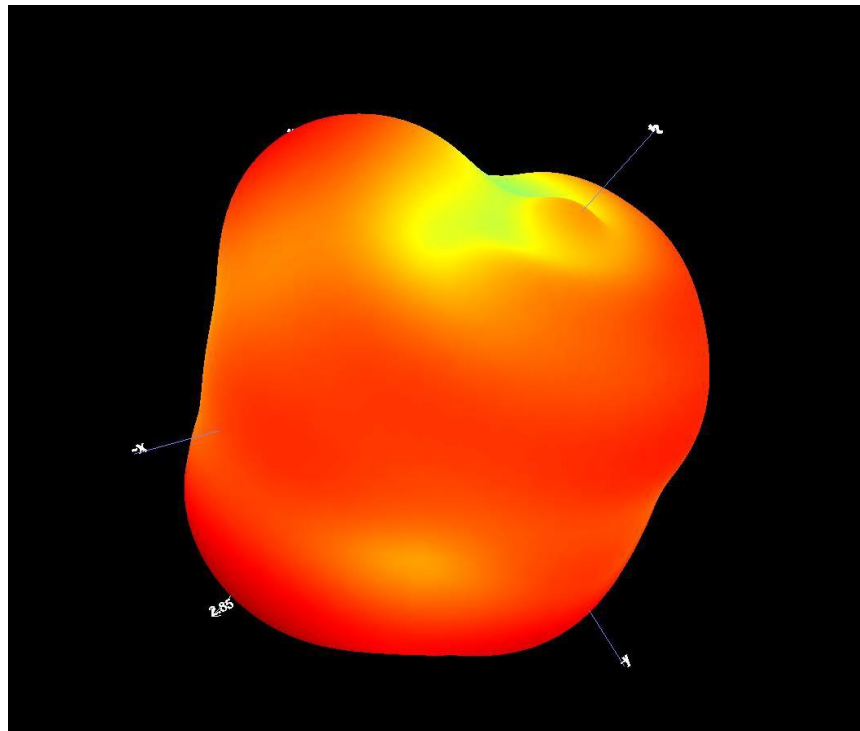
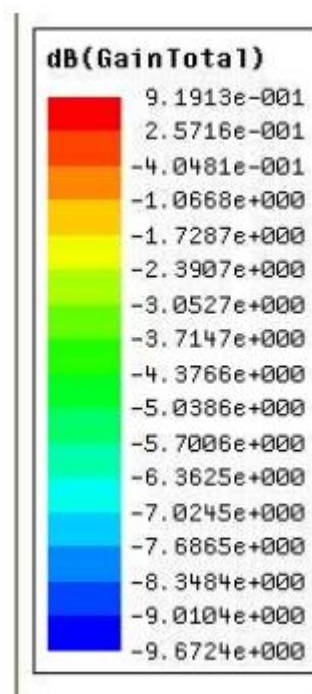


Figure5



Mouse antenna gain and 3D direction diagram (the Y-axis is the left and right direction of figure 5, and the X-axis is the upper and lower direction of figure 5)

1D Radiation Pattern.The gain simulation data of the antenna is shown in figure 6.7.8.

PHI=0

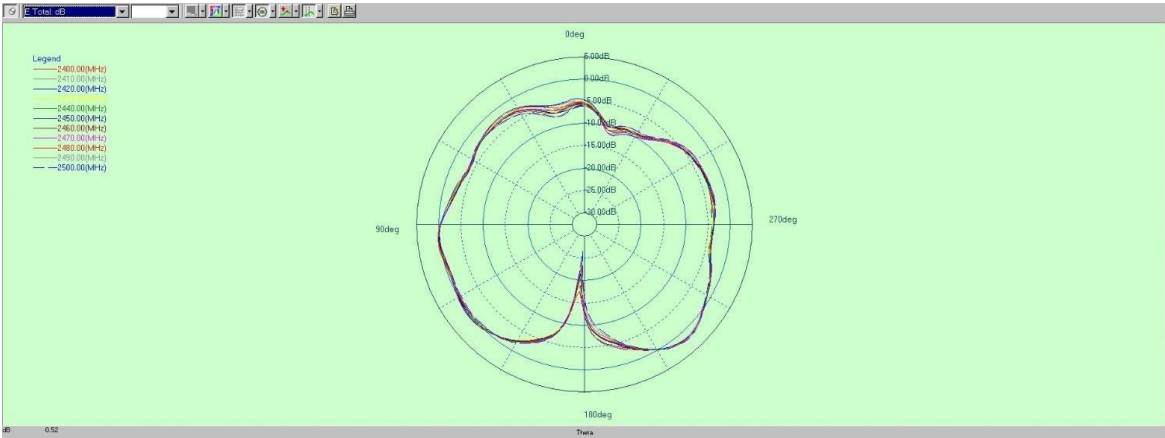


figure 6

PHI=90

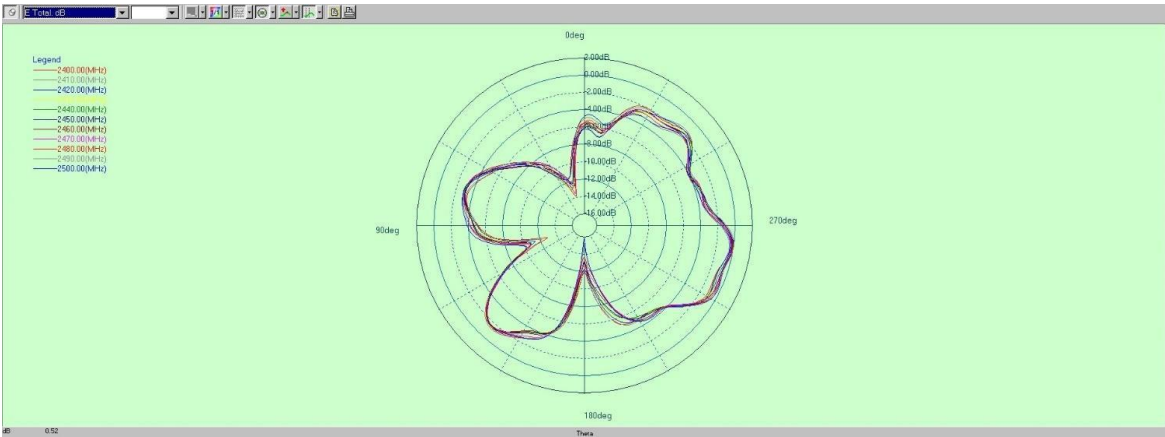


figure 7

THETA=90

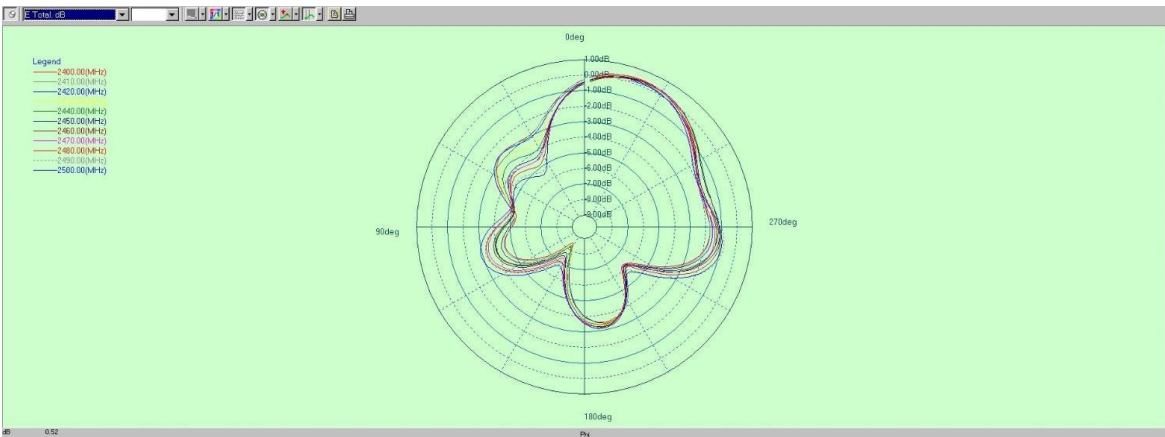


figure 8