



ANTENNA SPECIFICATION

Manufacture: TUYA

Product Name: THP01-ZB-V5 Antenna

Antenna Type: Metal PCB

Test Date: 2024.10.25

Tested by: Zhang Yinhua

Approved by: Licco

Content

1.General Description.....	1
2.Test Configurations	2
2.1 Test Environment.....	2
2.2 Test Equipment	2
2.3 Test Principle.....	2
3.Test Results.....	3
3.1 Gain and Efficiency.....	3
3.2 Radiation Pattern.....	5
4.Antenna Dimensions	8
5.Test Setup Photo.....	9



1.General Description

Manufacturer	Hangzhou Tuya Information Technology Co.,Ltd
Address	Room 701,Building 3,More Center,No.87 GuDun Road, Hangzhou, Zhejiang,China
Test Location	Room 509, Building 1, Binrun Science and Technology Park, No. 5 Zhiren Street, Puyan Street, Binjiang District, Hangzhou
Product Name	THP01-ZB-V5 Antenna
Product model	THP01-ZB-V5
Antenna Type	Antenna
Test Items	Gain; Efficiency; Radiation Pattern
Test Frequency	2400-5850MHz
Test Standard	ANSI/IEEE Std 149-1979

2.Test Configurations

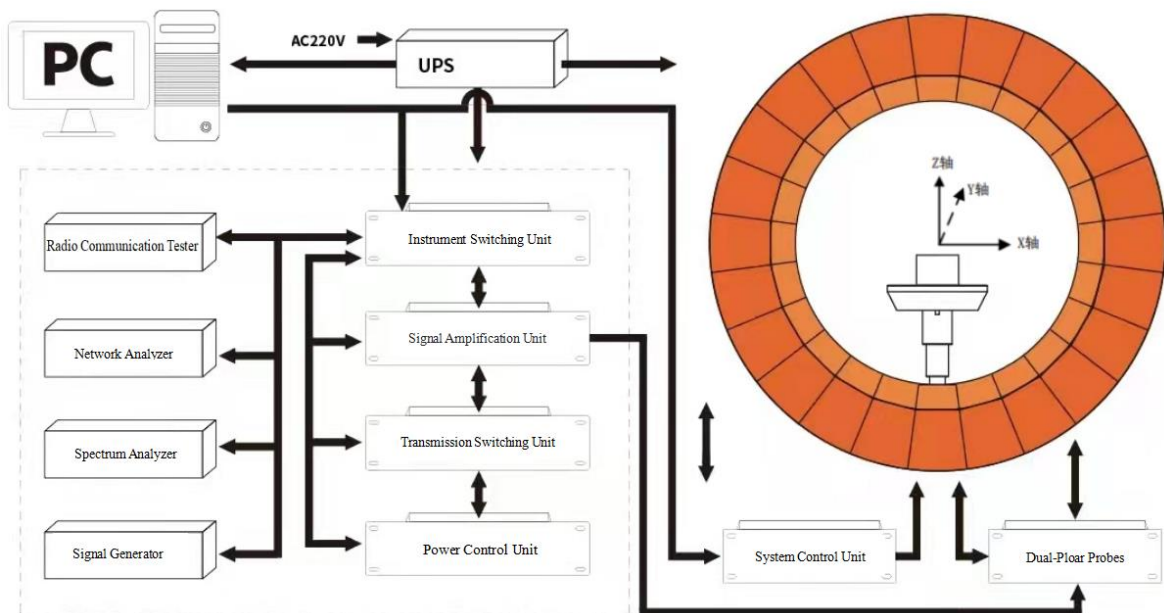
2.1 Test Environment

Temperature (°C)	25
Humidity (%RH)	60
Atmospheric Pressure (kPa)	100.5

2.2 Test Equipment

Test System	TEM 24 Multi-probe Microwave Chamber
Test Instrument	Agilent E5071B

2.3 Test Principle





3.Test Results

3.1 Gain and Efficiency

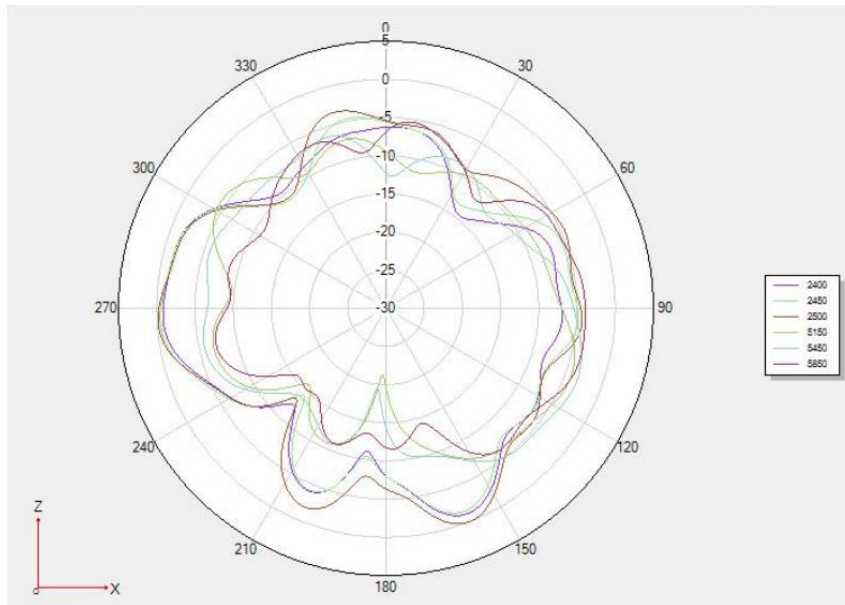
Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	1.90	42.08
2410	1.38	43.50
2420	1.55	45.85
2430	1.56	46.16
2440	1.92	48.53
2450	1.39	45.65
2460	1.85	45.85
2470	1.93	42.99
2480	1.98	45.55
2490	1.89	47.50
5150	-1.20	40.16
5250	-0.08	41.64
5350	0.78	41.56
5450	1.40	43.28
5550	1.53	41.22



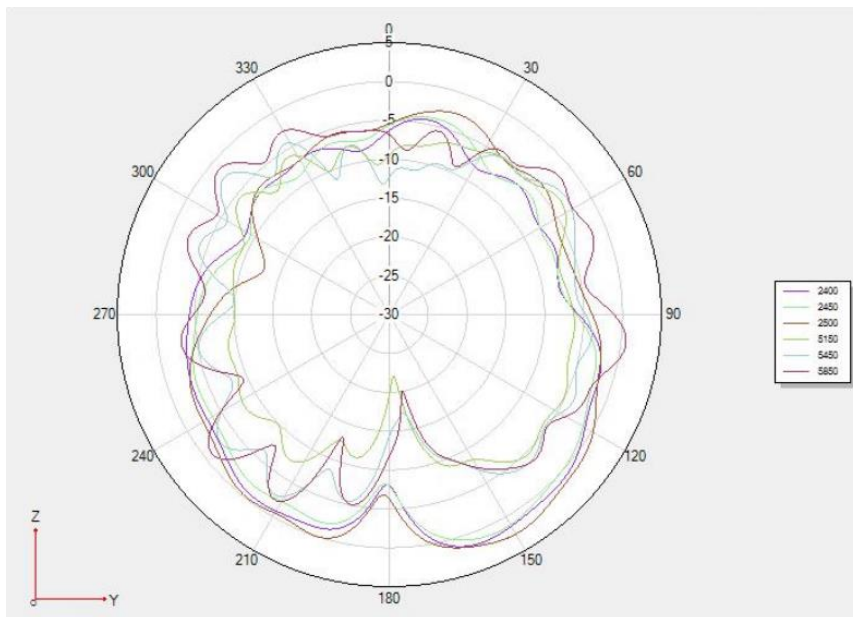
5650	1.57	42.84
5750	1.74	44.46
5850	2.14	43.55

3.2 Radiation Pattern

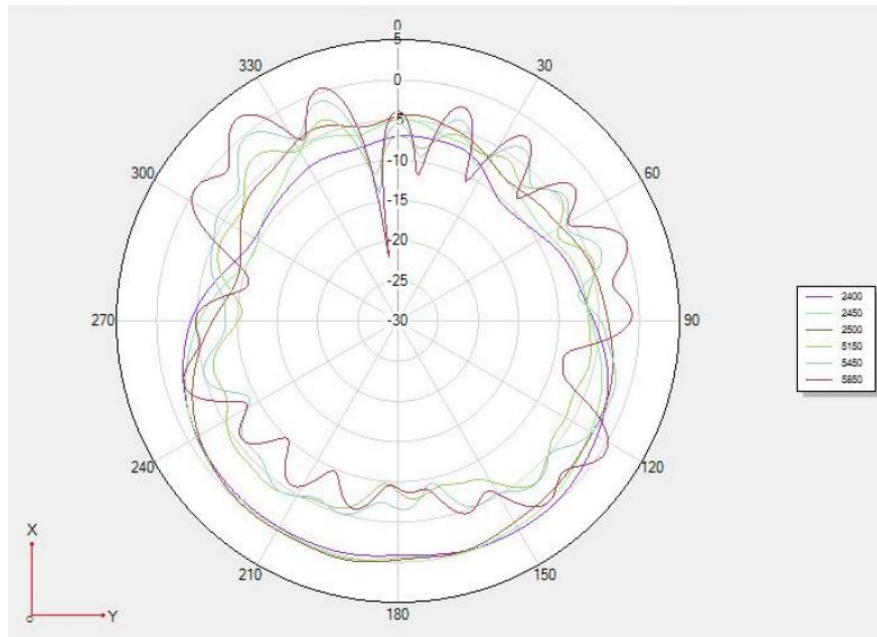
Phi 0 2D



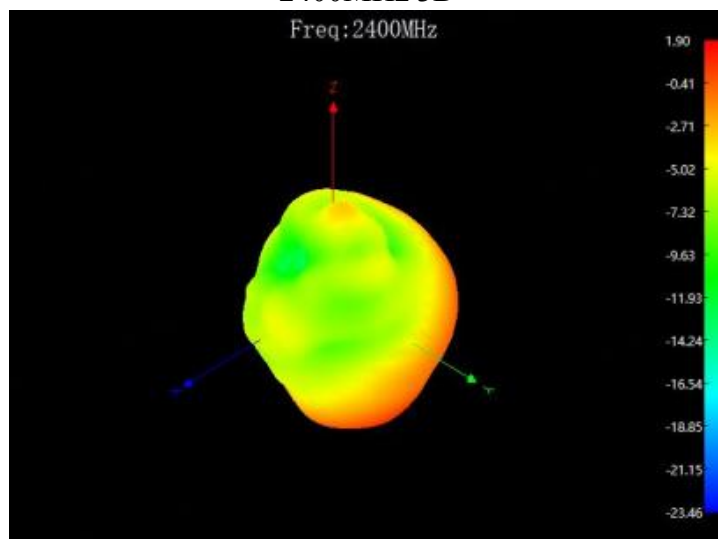
Phi 90 2D



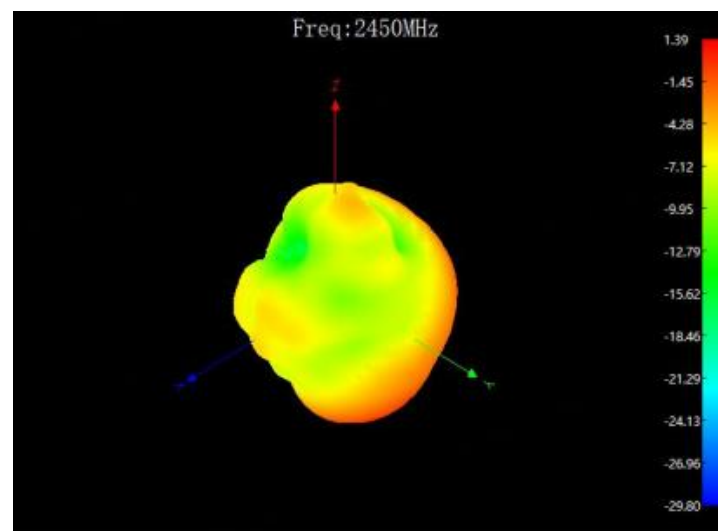
Theta 90 2D



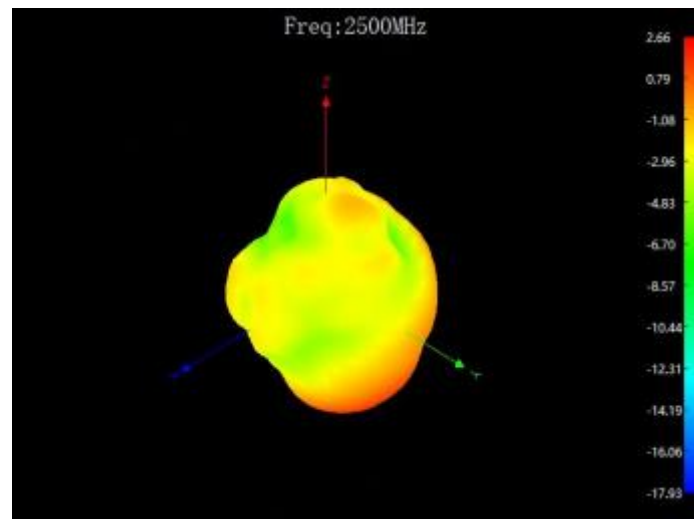
2400MHz 3D



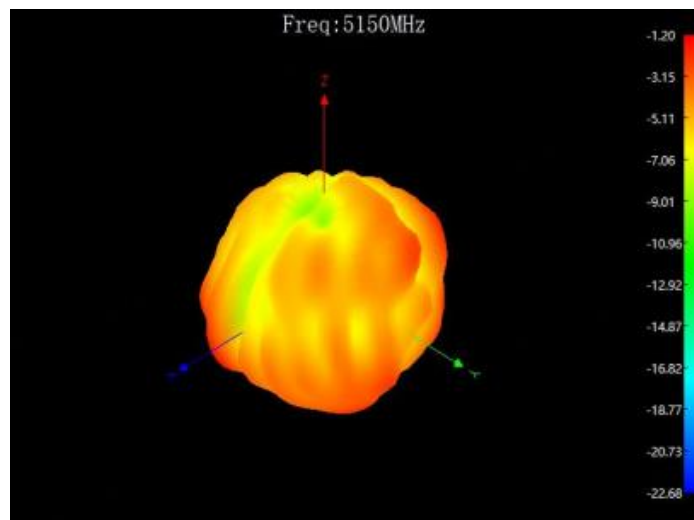
2450MHz 3D



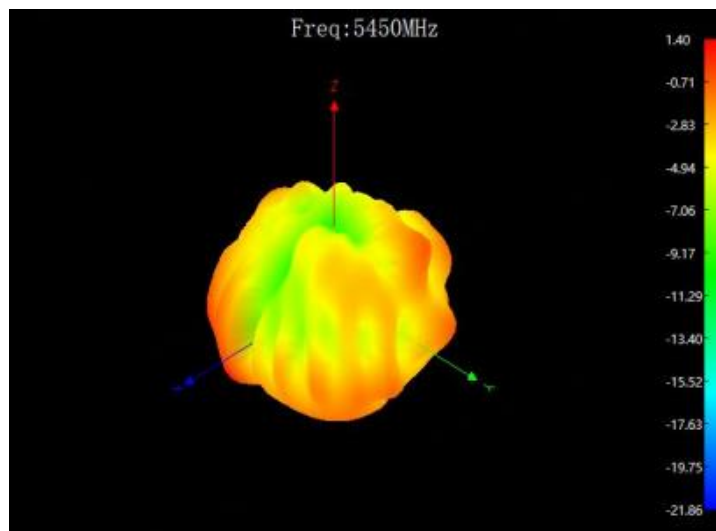
2500MHz 3D



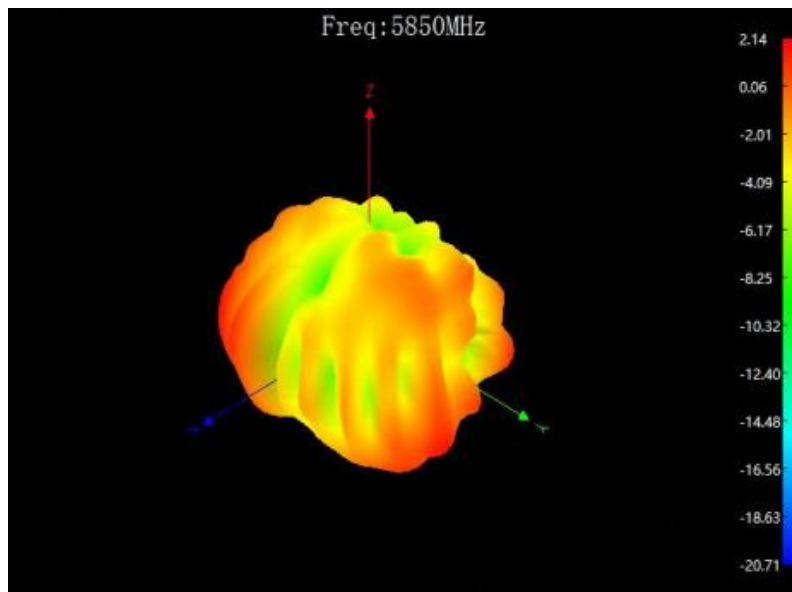
5150MHz 3D



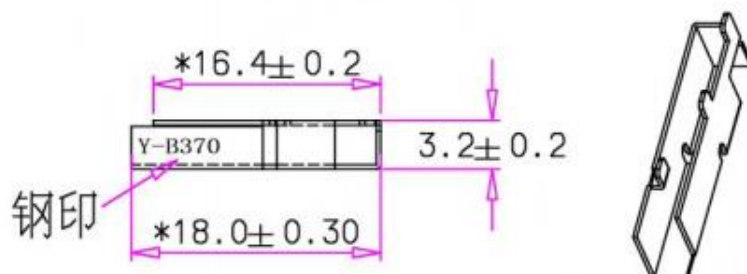
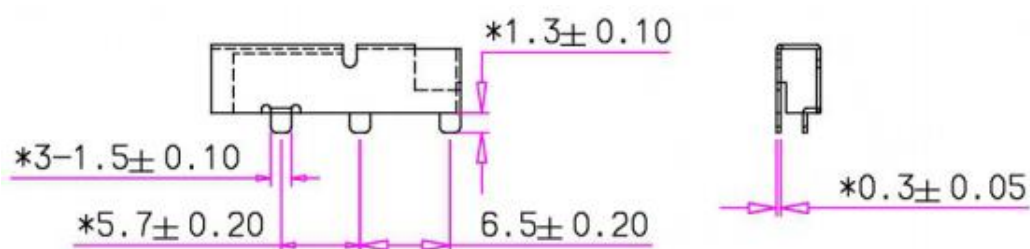
5450MHz 3D



5850MHz 3D



4. Antenna Dimensions



单位: mm

5.Test Setup Photo

