



Antenna Specification

Manufacture: TUYA

Product Name: TTFM-52G/TTFM-53G Antenna

Antenna Type: PCB

Test Date: 2025.3.15

Tested by: xuankong *xuankong.xu*

Approved by: Licco



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6.Test Setup Photo	错误!未定义书签。



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, No. 5 Zhiren Street, Binjiang District, Hangzhou
Product Name	TTFM-52G/TTFM-53G Antenna
Product model	TTFM-52G/ TTFM-53G
Antenna Type	PCB Antenna
Test Items	Gain; Efficiency; Radiation Pattern
Test Frequency	2400-2500MHz
Test Standard	ANSI/IEEE Std 149-1979



2.Test Configurations

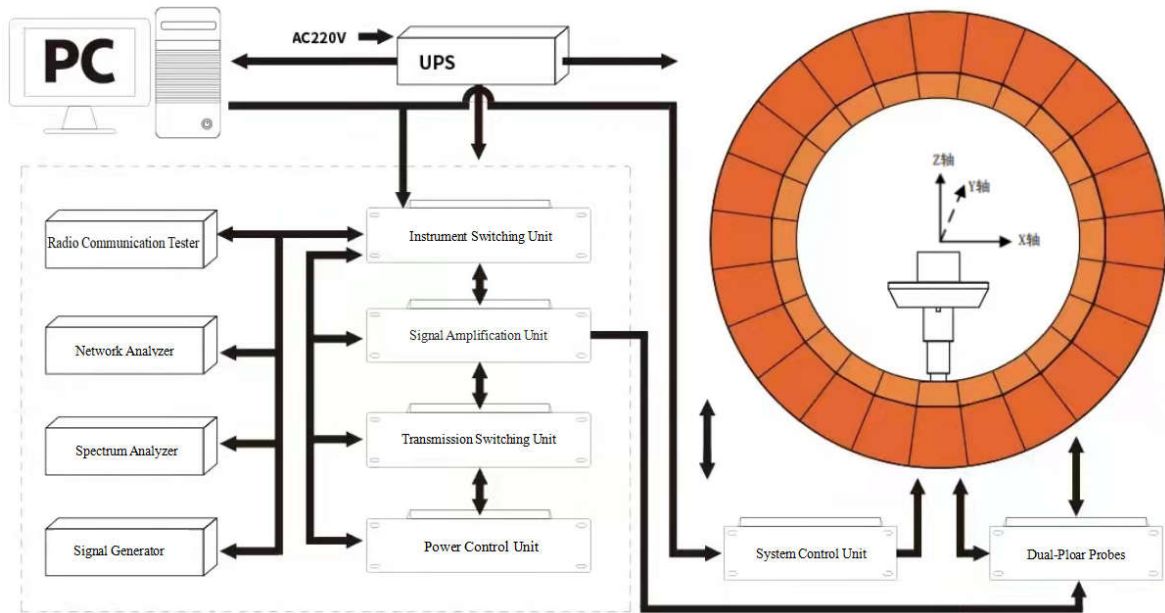
2.1 Test Environment

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
Instrument Calibration Date	2025/2/10
Due Date	2026/2/9

2.3 Test Principle



3.Test Results

3.1 Gain and Efficiency

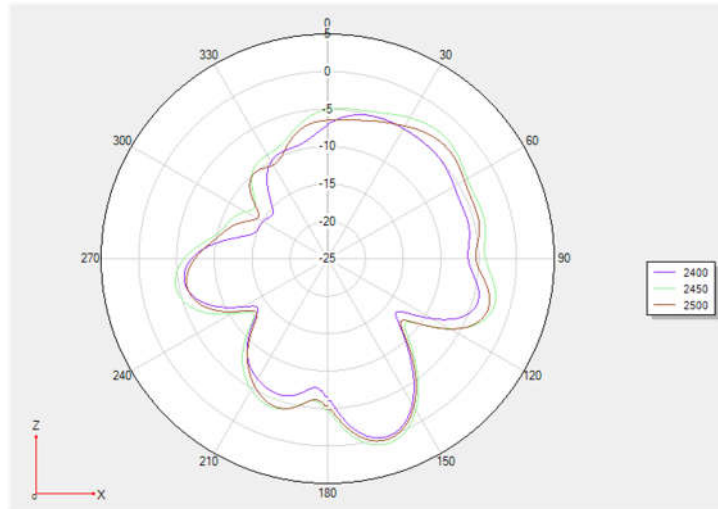
Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	0.01	25.59
2410	0.37	28.31
2420	0.83	31.26
2430	1	33.81
2440	1.28	34.99
2450	0.92	35.32
2460	0.85	34.91



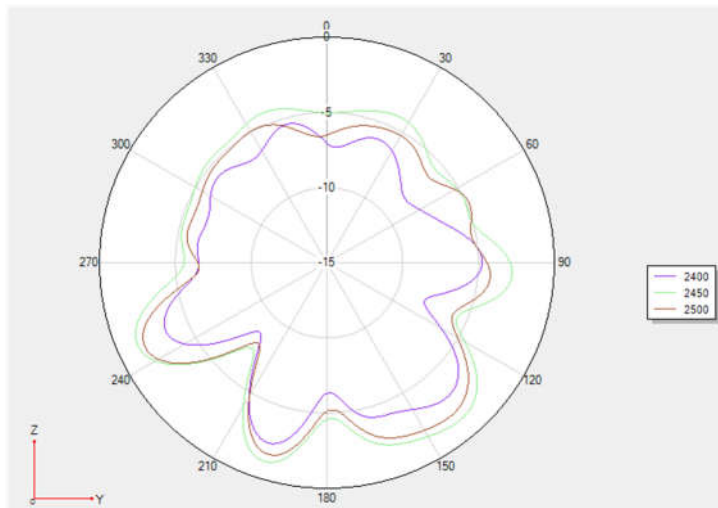
2470	1.03	35.97
2480	0.59	33.11
2490	0.47	31.62
2500	0.37	29.58

3.2 Radiation Pattern

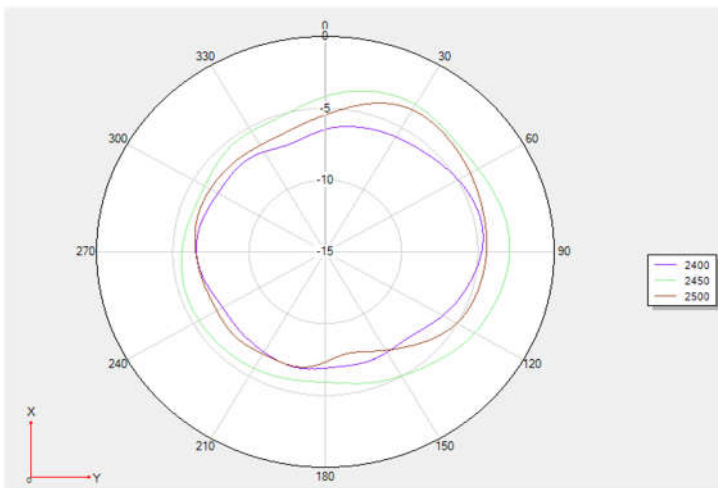
Phi 0 2D



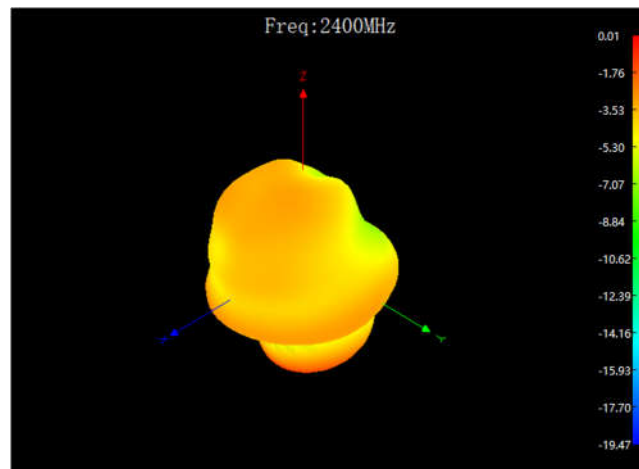
Phi 90 2D



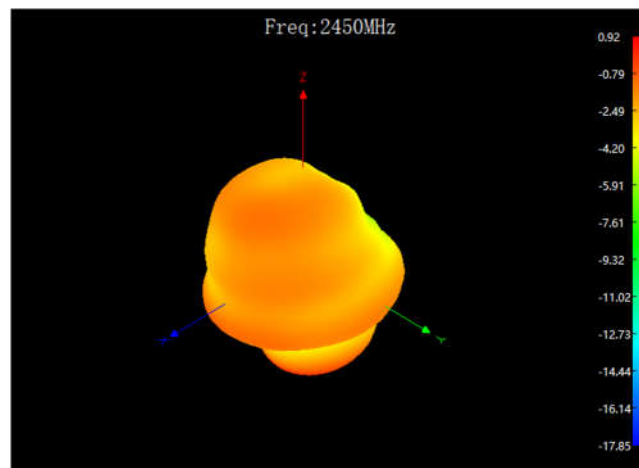
Theta 90 2D



2400MHz 3D



2450MHz 3D



2500MHz 3D

