

ANTENNA REPORT

Antenna Manufacture : Dongguan UB Electronic Co.,Ltd
(UANT)

Product Name: TPA10-M2U Antenna

Antenna Type: IPEX / FPC

Test Date: 2023.03.17

Tested by: Xiaonian Zheng

Approved by: Licco

Content

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



1.General Description

End Product Manufacturer	Hangzhou Tuya Information Technology Co.,Ltd
End Product Manufacturer Address	Room 701,Building 3,More Center,No.87 GuDun Road, Hangzhou, Zhejiang,China
Test Location	Room 106, Building 3, Letong Science Park, No. 500, Qiuyi Road, Binjiang District, Hangzhou
Product Name	TPA10-M2U Antenna
End Product model	TPA10-M2U
Antenna Type	IPEX FPC Antenna
Wi-Fi & Classic BT Antenna Model/supplier/PK Gain	UB01C60F1D2690A / (UANT) /3.91dbi
BLE Antenna Model/supplier/PK Gain	UB01C65F1D2691A / (UANT) /0.73 dbi
Zigbee Antenna Model/supplier/PK Gain	UB01C95F1D2692A / (UANT) /2.65 dbi
Test Items	Gain; Efficiency; Radiation Pattern
Test Frequency	2400-2500MHz
Test Standard	ANSI/IEEE Std 149-1979

2.Test Configurations

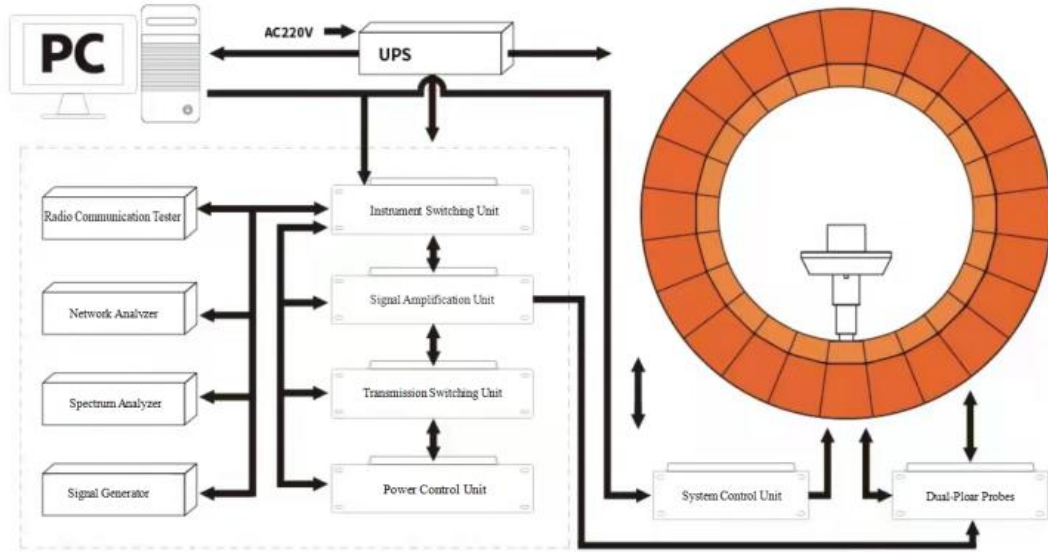
2.1 Test Environment

Temperature (°C)	28
Humidity (%RH)	58
Atmospheric Pressure (kPa)	100.7

2.2 Test Equipment

Test System	TEM 24 Multi-probe Microwave Chamber
Test Instrument	Agilent E5071B
Calibration Validity	2023-11-23

2.3 Test Principle



3. Test Results

3.1 Gain and Efficiency

Wi-Fi & Classic BT Antenna

Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	35.81	2.09
2410	36.98	2.39
2420	38.9	2.8
2430	40.55	3.13
2440	41.69	3.32
2450	42.76	3.69
2460	44.06	3.9
2470	44.46	3.91
2480	44.57	3.82
2490	44.87	3.66
2500	44.67	3.42

BLE Antenna

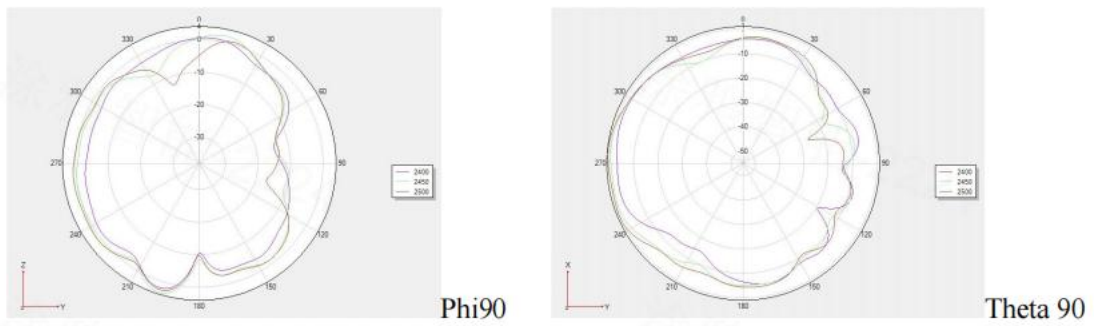
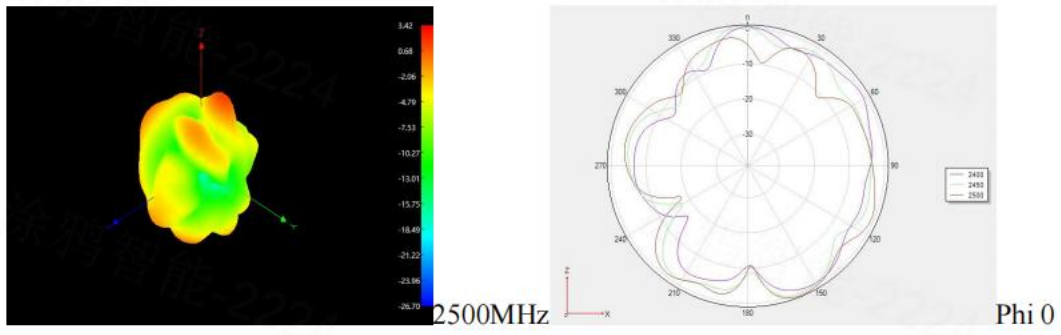
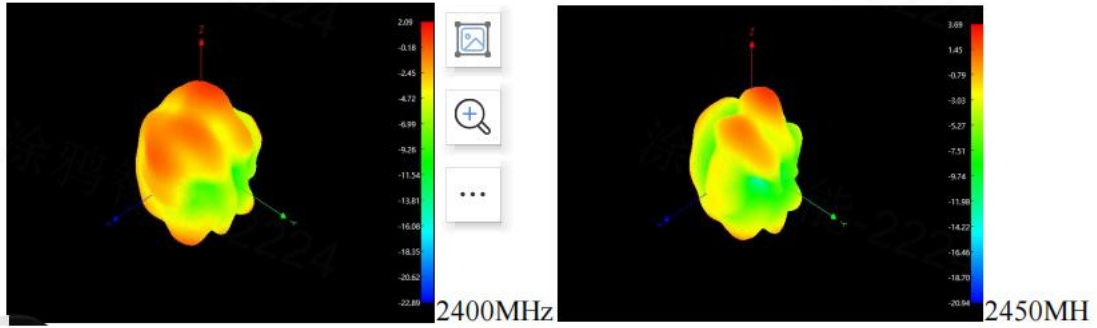
Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	33.34	0.27
2410	33.73	0.46
2420	34.2	0.62
2430	34.28	0.69
2440	34.12	0.73
2450	33.96	0.67
2460	33.81	0.68
2470	33.27	0.72
2480	32.36	0.7

Zigbee Antenna

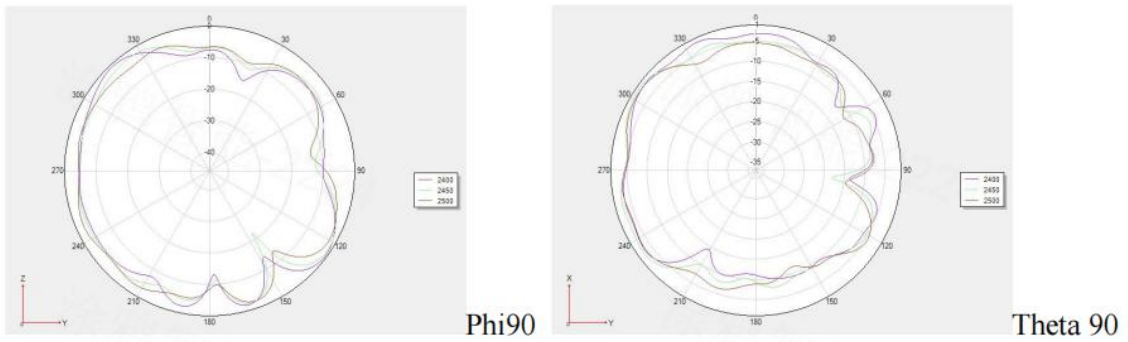
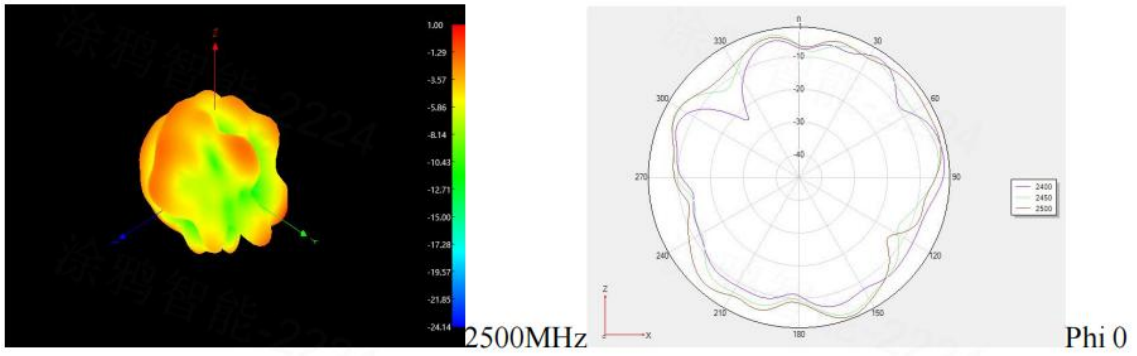
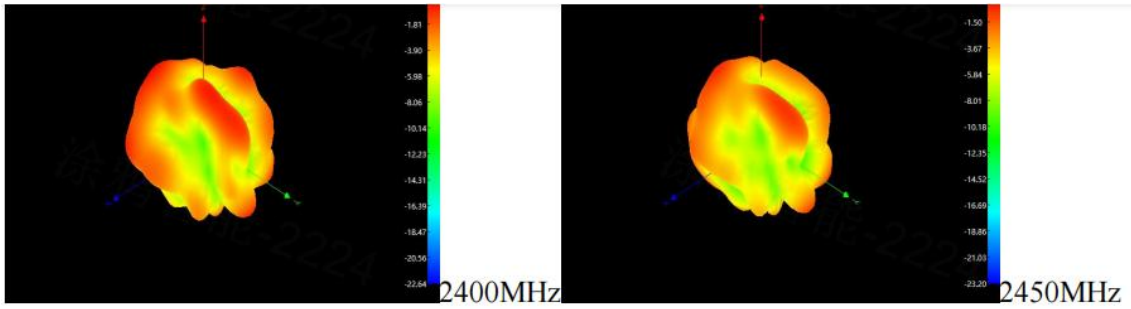
Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	22.03	1.33
2410	24.55	1.59
2420	27.67	2.03
2430	30.9	2.45
2440	33.19	2.55
2450	35.65	2.65
2460	37.58	2.62
2470	38.02	2.39
2480	37.41	2.07
2490	36.81	1.78
2500	35.4	1.6

3.2 Radiation Pattern

3.2.1 Wi-Fi & Classic BT Antenna



3.2.2 BLE Antenna



3.2.3 Zigbee Antenna

