



Antenna Specification

Manufacture: TUYA

Product Name: CL-BTT8-01 Antenna

Antenna Type: PCB

Test Date: 2024.01.02

Tested by: Zhang Yinhua

Approved by: Licco

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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 106, Building 3, Letong Science Park, No. 500, Qiuyi Road, Binjiang District, Hangzhou
Product Name	CL-BTT8-01 Antenna
Product model	CL-BTT8-01
Antenna Type	PCB Antenna
Test Items	Gain; Efficiency; Radiation Pattern
Test Frequency	2402-2480MHz for BLE 5700-5900 MHz for Radar
Test Standard	ANSI/IEEE Std 149-1979

2. Test Configurations

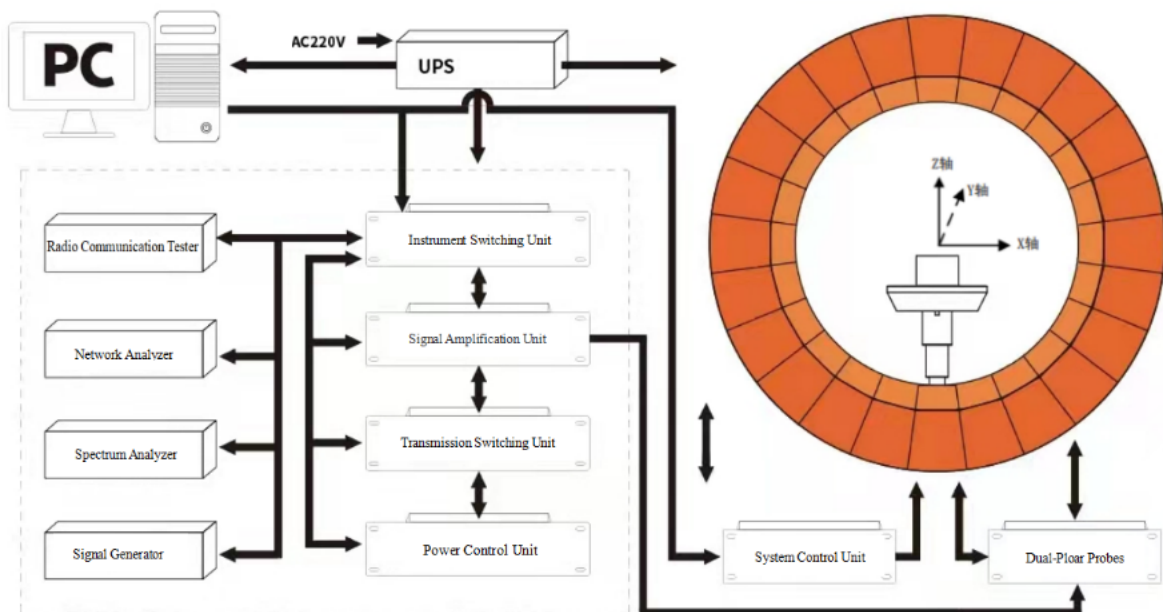
2.1 Test Environment

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

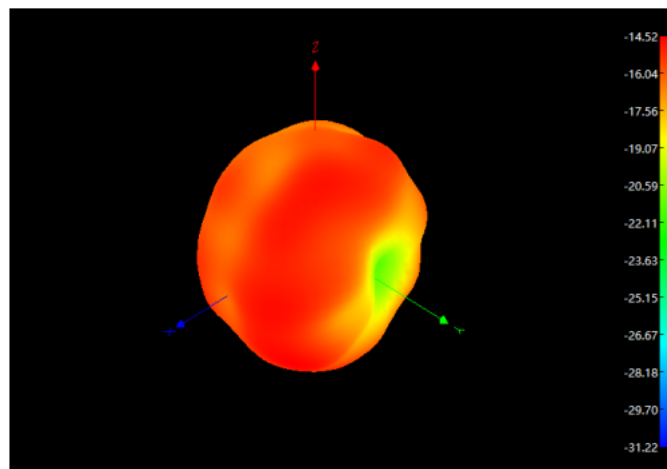


3.Test Results

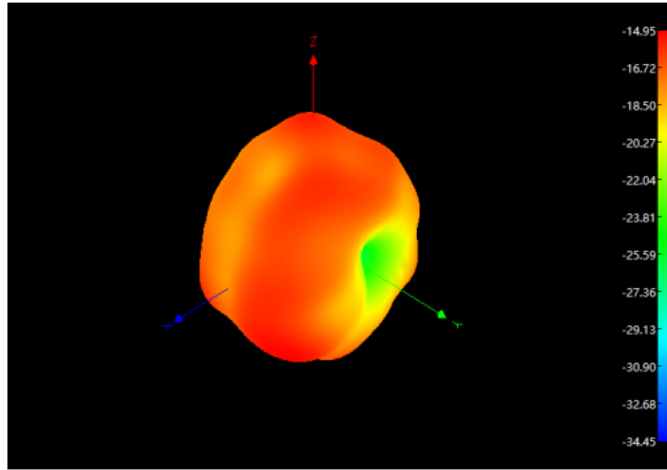
3.1 Gain and Efficiency for BLE

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	-14.52	1.62
2410	-14.98	1.49
2420	-14.62	1.47
2430	-14.92	1.36
2440	-14.73	1.3
2450	-14.95	1.21
2460	-15.32	1.13
2470	-15.32	1.13
2480	-16.03	0.99
2490	-16	1.04
2500	-16.38	0.94

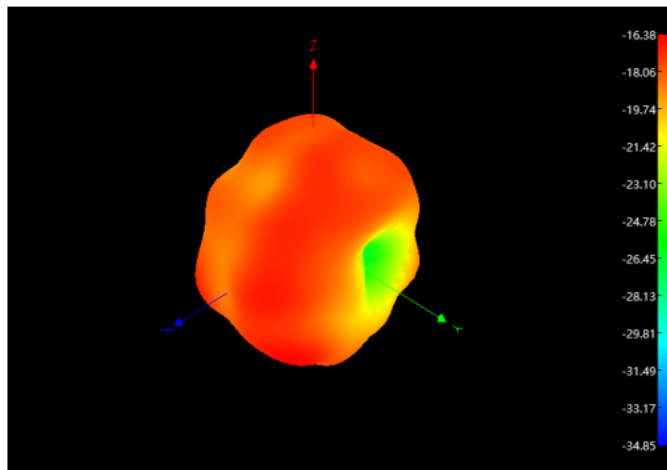
3.2 Radiation Pattern for BLE



2450MHz 3D



2500MHz 3D



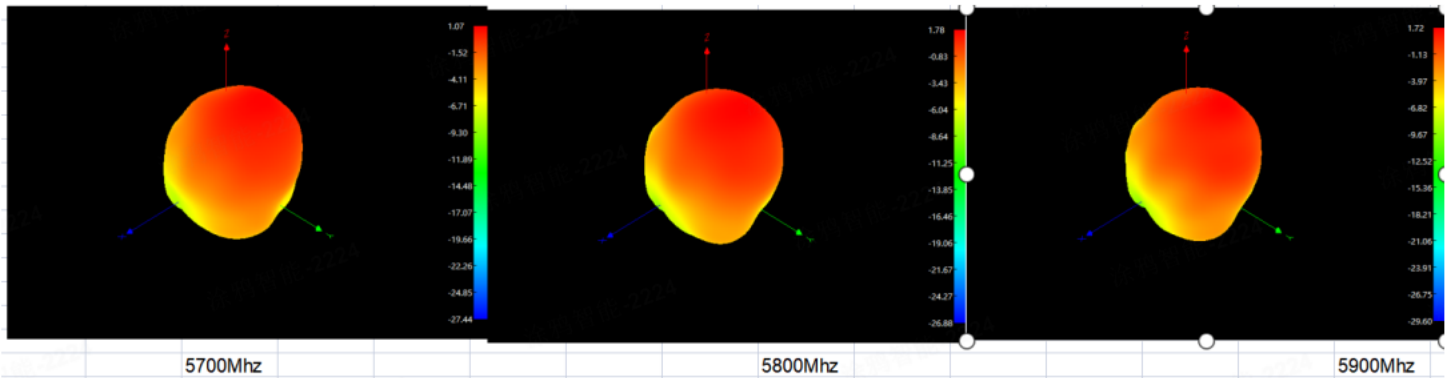
3.3 Gain and Efficiency for Radar

Frequency / MHz	Gain/ dBi	Efficiency / %	Frequency / MHz	Gain/ dBi	Efficiency / %
5700	1.07	32.21	5800	1.78	37.84
5705	1.15	32.66	5805	1.7	37.24
5710	1.12	32.58	5810	1.69	37.84
5715	1.21	32.66	5815	1.77	38.46
5720	1.34	34.04	5820	1.85	38.28
5725	1.38	34.83	5825	1.74	37.76
5730	1.29	34.67	5830	1.68	37.41
5735	1.52	34.91	5835	1.77	37.5
5740	1.63	36.06	5840	1.8	38.19
5745	1.62	37.15	5845	1.79	38.19
5750	1.57	37.67	5850	1.58	37.15
5755	1.62	36.73	5855	1.63	36.31
5760	1.66	36.39	5860	1.79	36.48
5765	1.65	37.76	5865	1.75	36.98
5770	1.69	38.9	5870	1.65	36.64
5775	1.65	38.11	5875	1.65	36.14

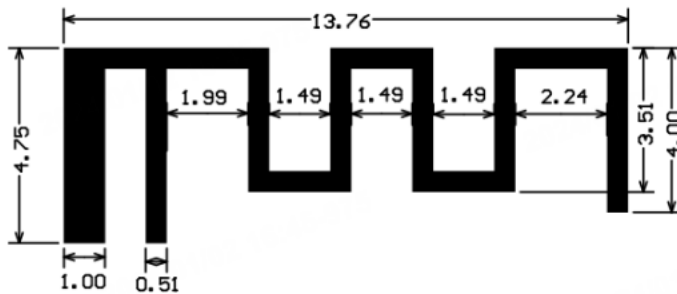


5780	1.75	37.07	5880	1.79	35.65
5785	1.73	37.24	5885	1.76	35.89
5790	1.69	37.93	5890	1.7	36.9
5795	1.73	38.19	5895	1.66	36.14
/	/	/	5900	1.72	35.16

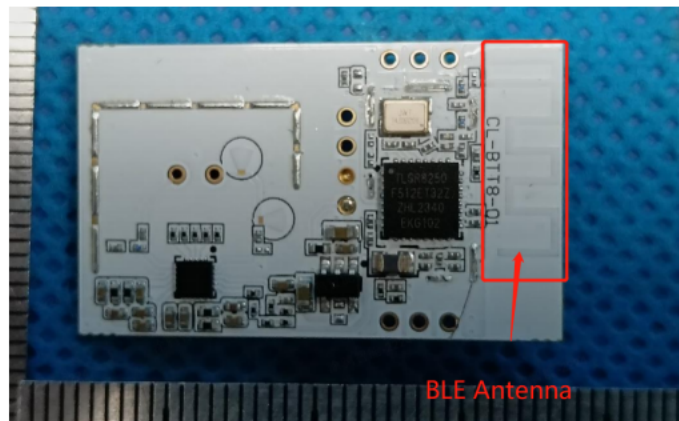
3.4 Radiation Pattern for for Radar



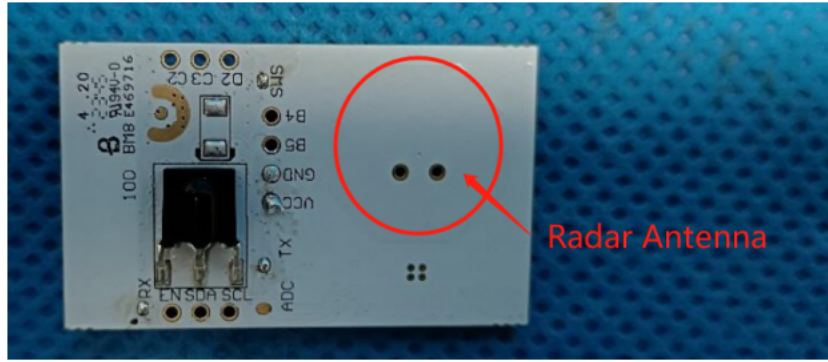
4. Antenna Dimensions



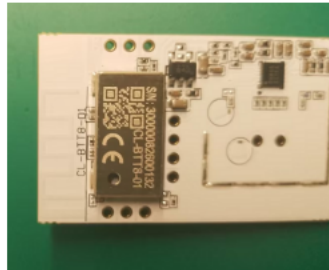
单位: mm



BLE



5.EUT Photo



6.Test Setup Photo

