



Antenna Specification

Manufacture: TUYA

Product Name: CB3S Antenna

Antenna Type: PCB

Test Date: 2021.04.16

Tested by: Jianwei Wang

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	CB3S Antenna
Product model	CB3S
Antenna Type	PCB Antenna
Test Items	Gain; Efficiency; Radiation Pattern
Test Frequency	2400-2500MHz
Test Standard	ANSI/IEEE Std 149-1979

2. Test Configurations

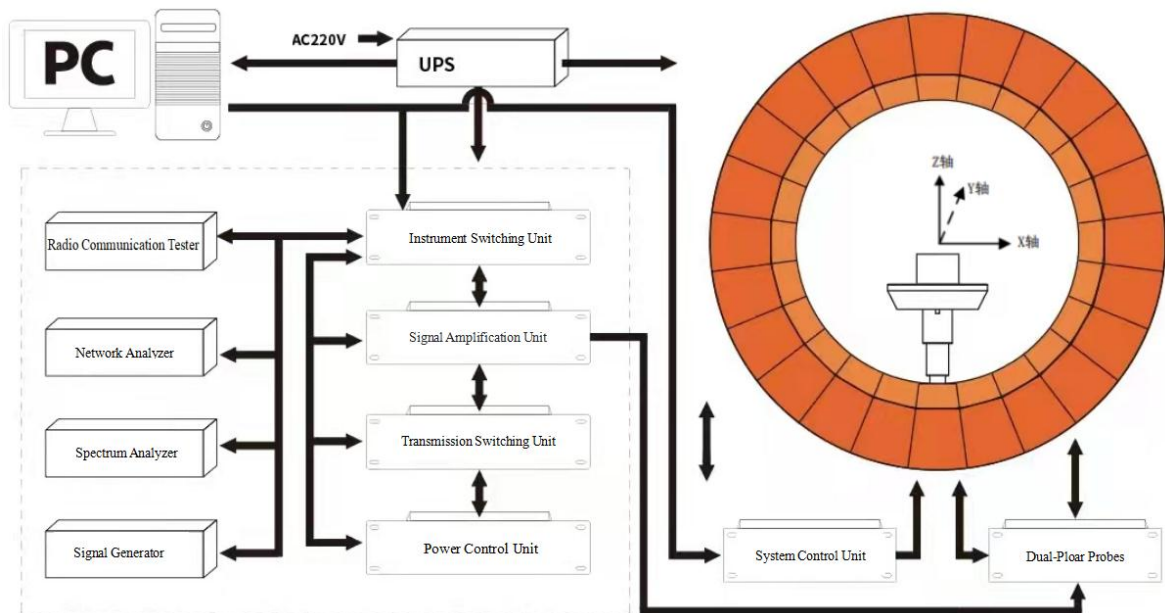
2.1 Test Environment

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

2.3 Test Principle





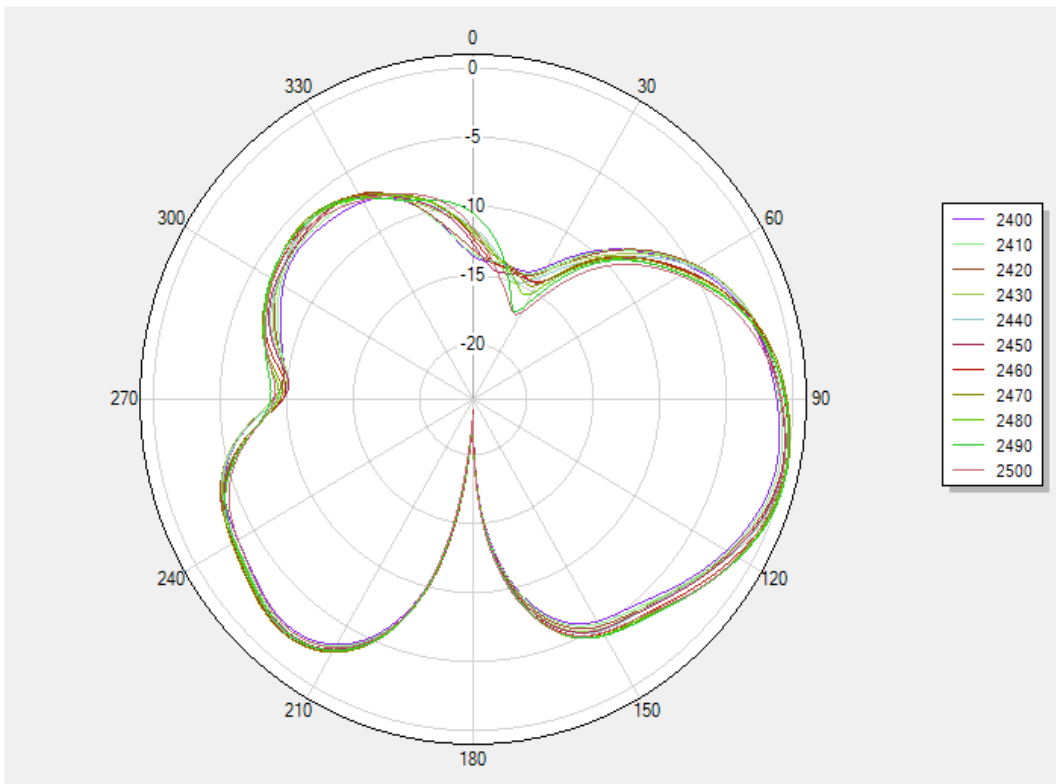
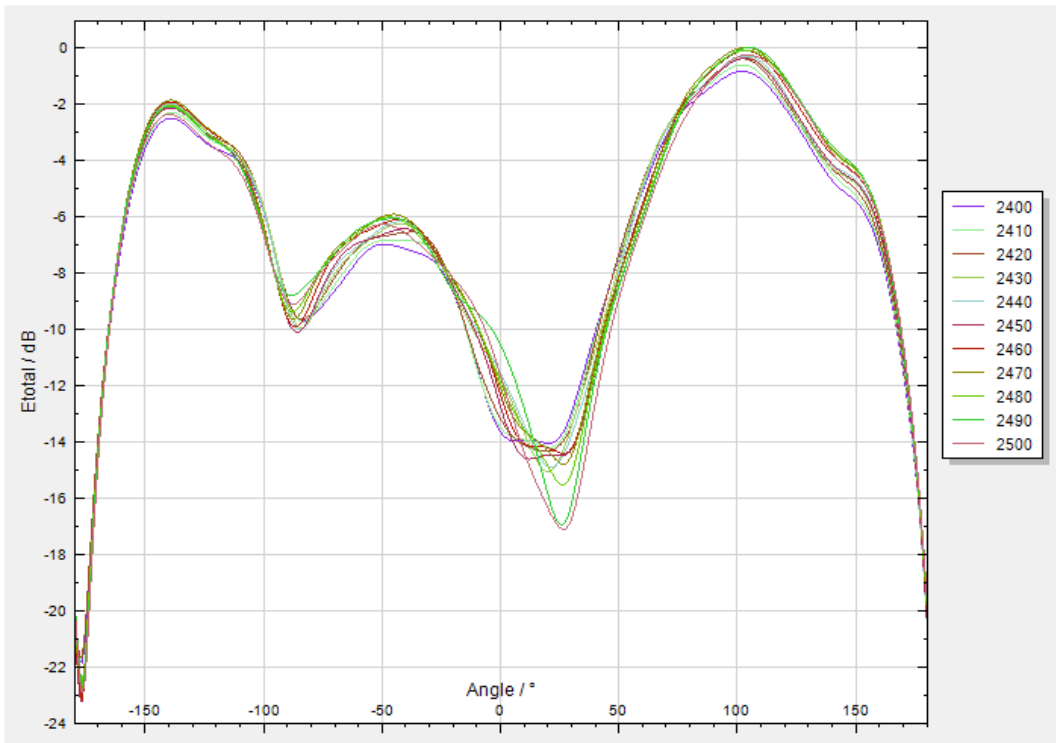
3. Test Results

3.1 Gain and Efficiency

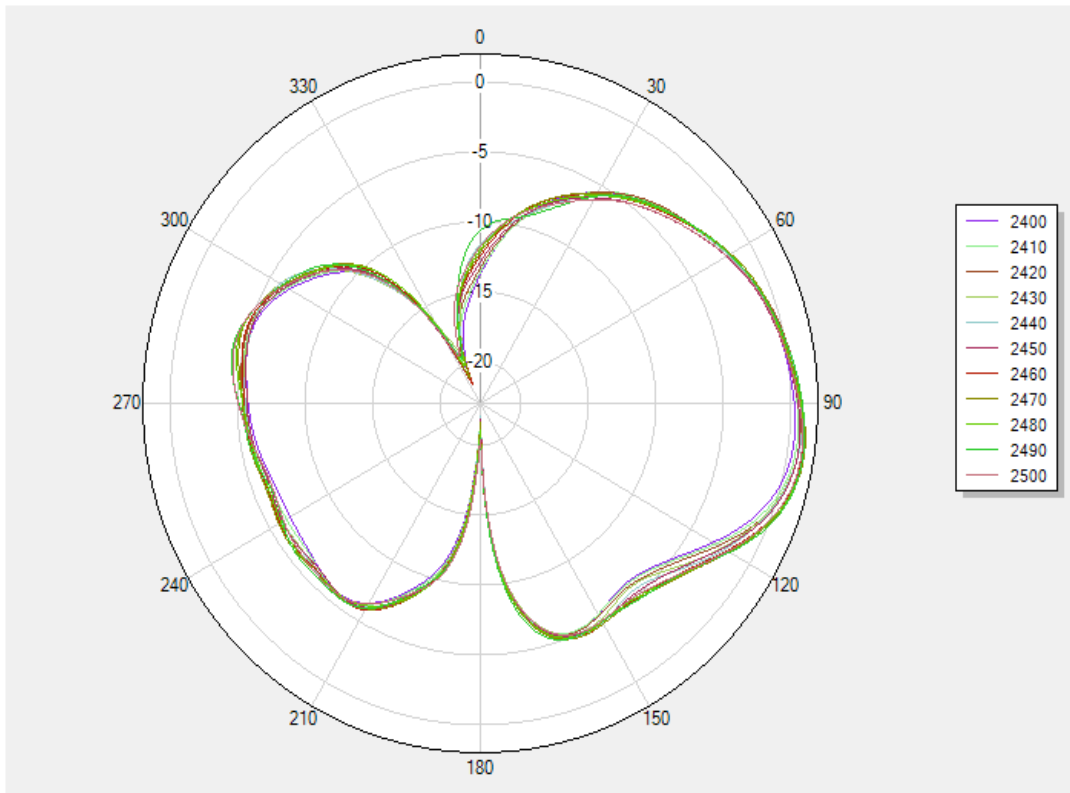
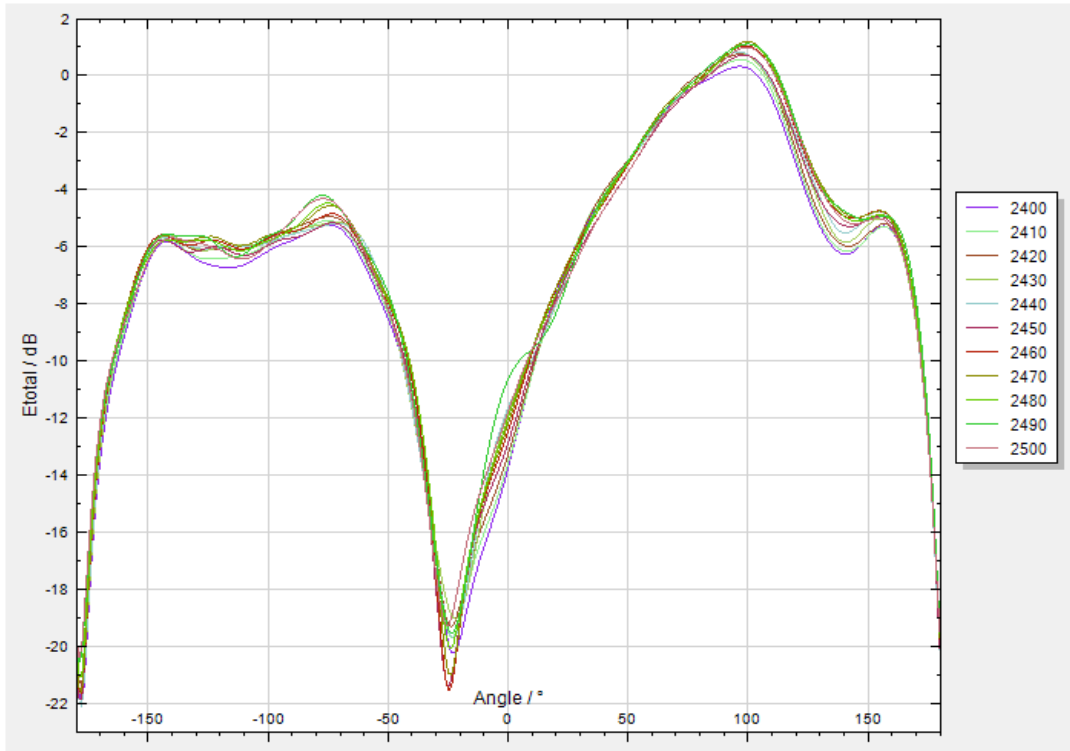
Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	0.46	44.36
2410	0.71	45.71
2420	0.92	45.92
2430	0.91	45.6
2440	0.95	45.6
2450	0.93	45.29
2460	1.27	46.45
2470	1.37	46.88
2480	1.25	47.21
2490	1.24	46.67
2500	1.05	44.87

3.2 Radiation Pattern

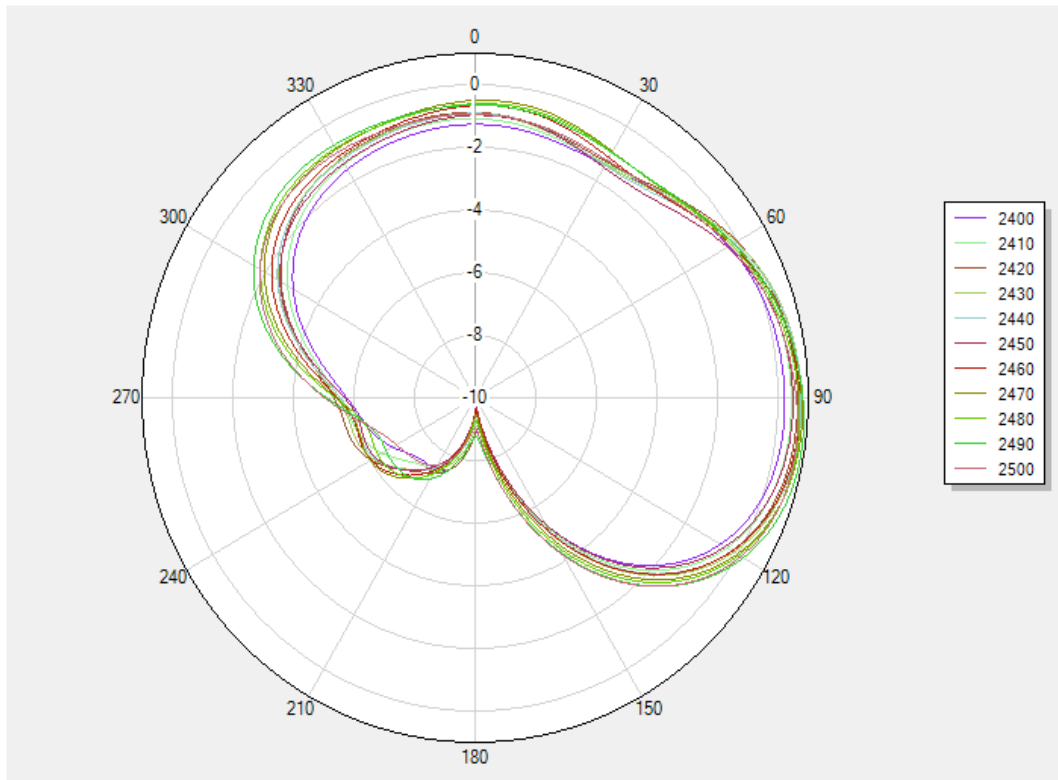
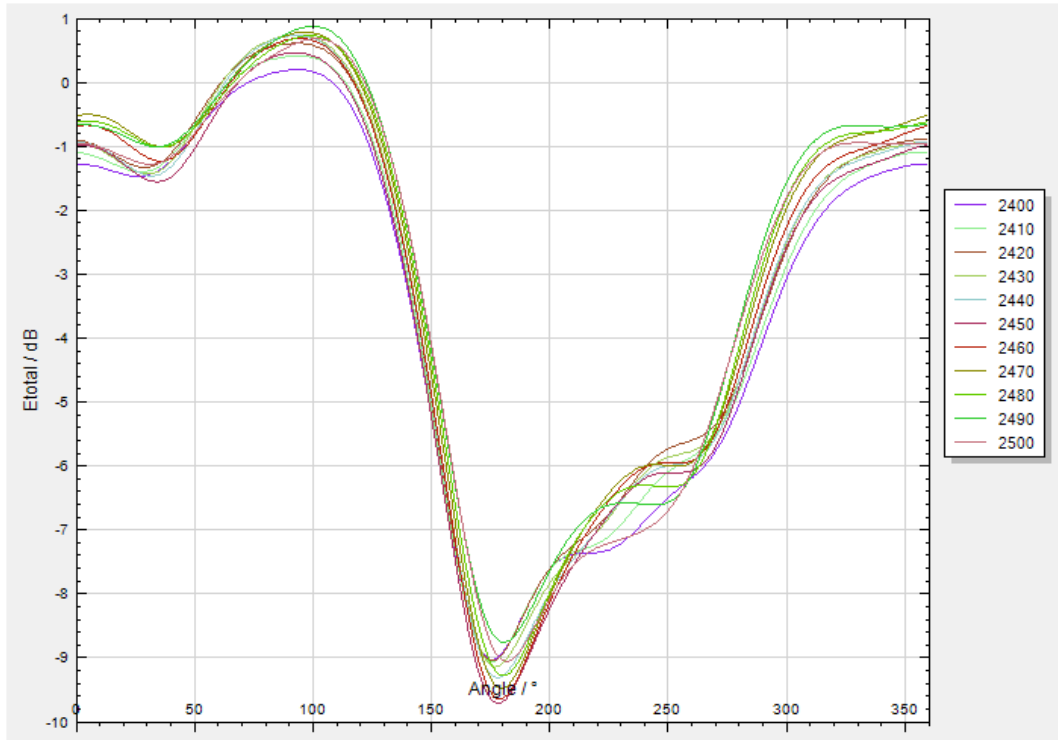
Phi 0



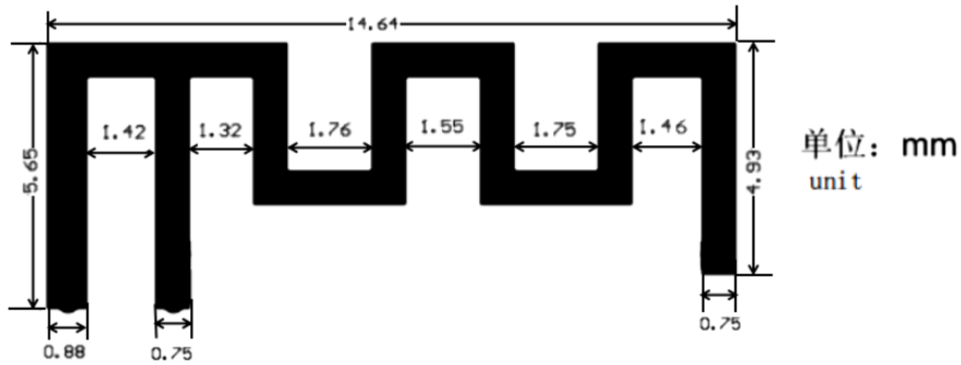
Phi 90



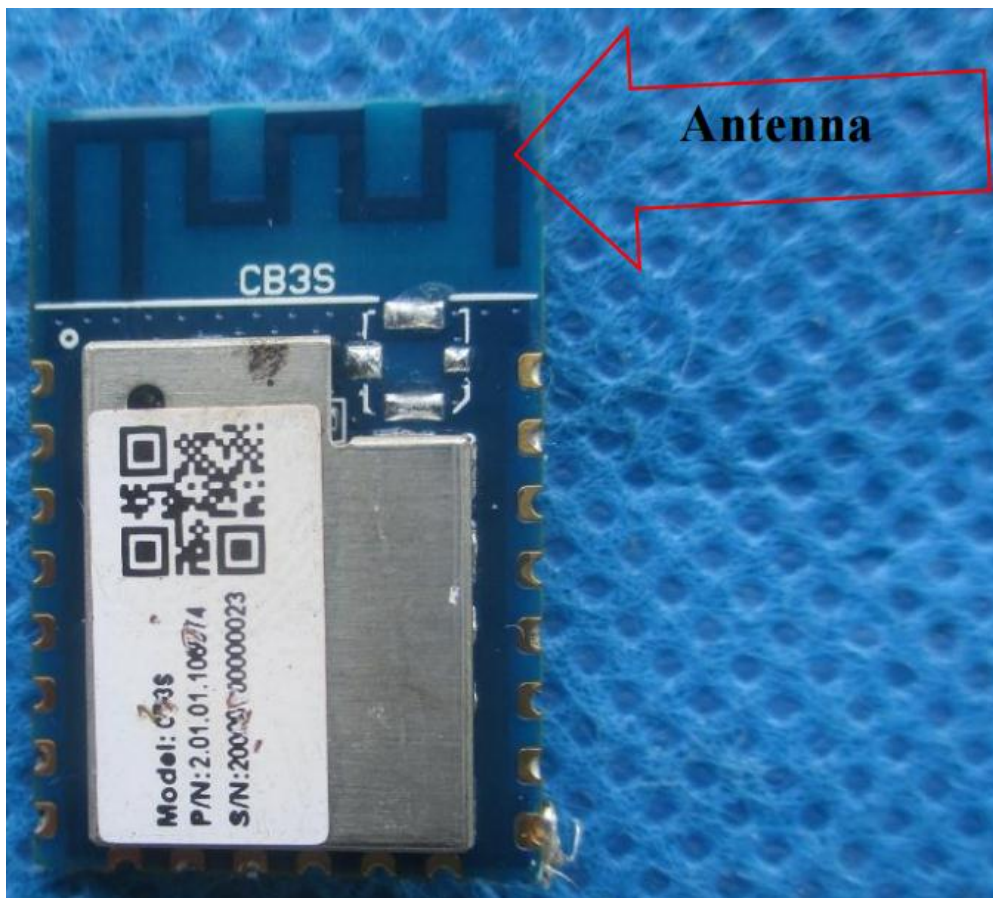
Theta 90



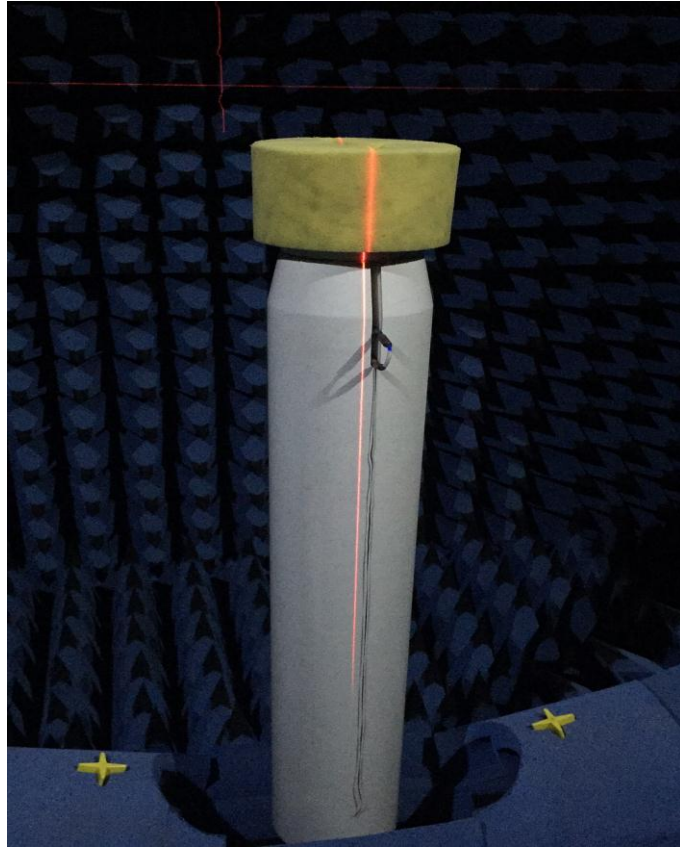
4. Antenna Dimensions



5. EUT Photo



6. Test Setup Photo



433mHZ Antenna report

Manufacturer: Guangdong Grasse Environmental Technology Co.,Ltd.

Address:No 670,GuangCong Five road, Zhongluotan Town,Baiyun District,Guangzhou

M/N:433MHZ



1. Gain and Efficiency

Freq(MHZ)	Efficiency(%)	Gain(dBi)
430	30.5	0.25
431	31.4	0.36
432	32.5	0.48
433	33.6	0.52
434	34.5	0.16
435	31.6	0.19
436	32.5	0.21
437	30.5	0.15
438	29.5	0.14