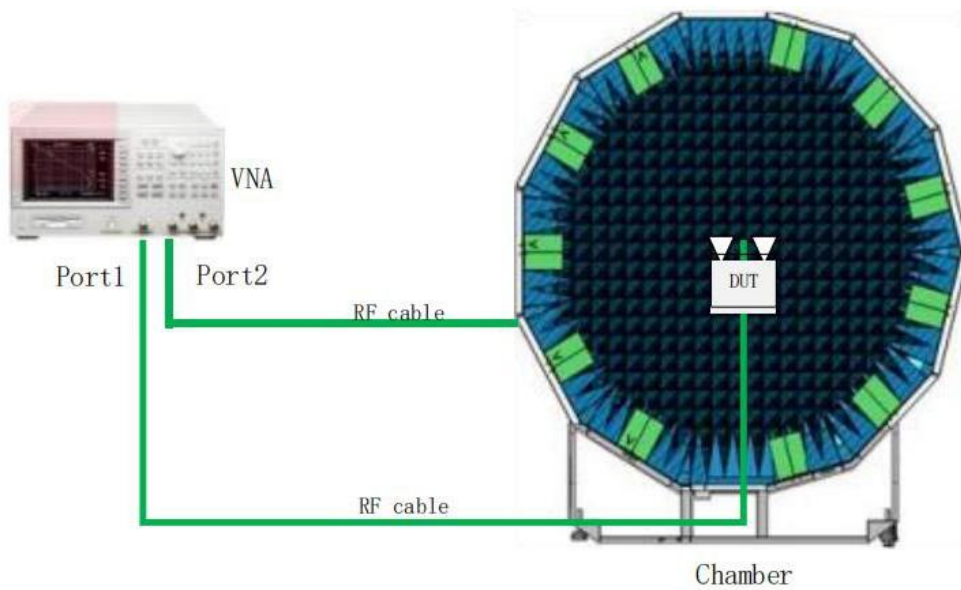


Type and shape of antenna	IFA Antenna/LOOP Antenna
Directional characteristics	Omni-directional
Deflection Characteristics of Antenna	Linear
Type of connection with transmitter	antenna shrapnel
Manufacturer	ZHEJIANG HAITONG COMMUNICATION ELECTRONICS Co., LTD Kunshan Innwave Communication Technology Co., LTD
Measuring Organization	ZHEJIANG HAITONG COMMUNICATION ELECTRONICS Co., LTD Kunshan Innwave Communication Technology Co., LTD

## 1. EUT Reference Setup



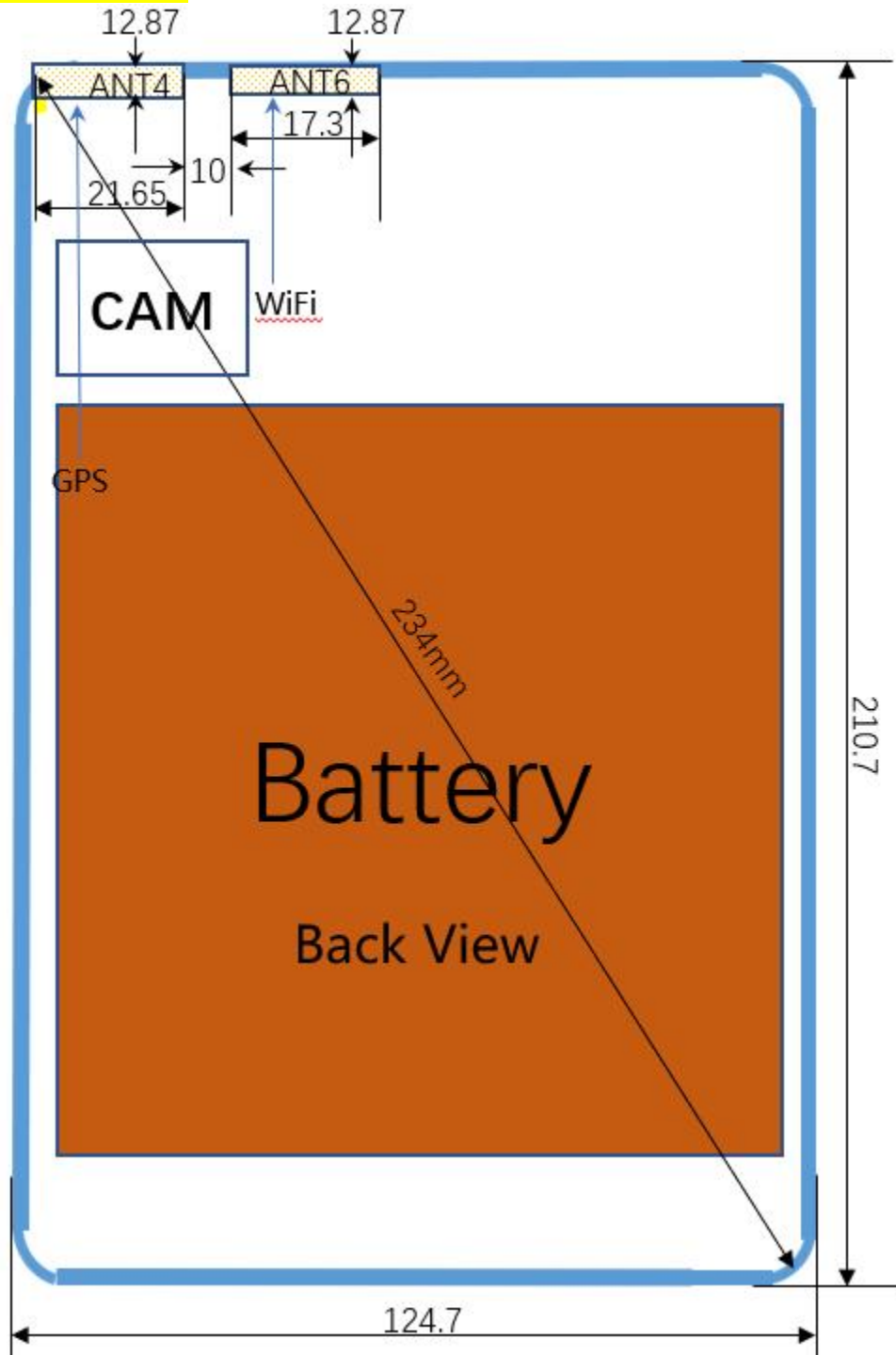
<b>Tester</b>	Zhangkanning/Hufabo
<b>Actual date of testing</b>	2023-07-05
<b>Test description</b>	Use an anechoic chamber to measure the radiation pattern and antenna gain. The GTS laboratory operates at 0.6-5.9GHz. The chamber's reflection level in the range of 0.6GHz to 5.9 GHz is typically $\leq 25$ dB. Standard dipoles are used to calibrate for path loss and magnetic ring lines are used to suppress feeder emissions, so we can measure antenna gain.

## Test Equipment List

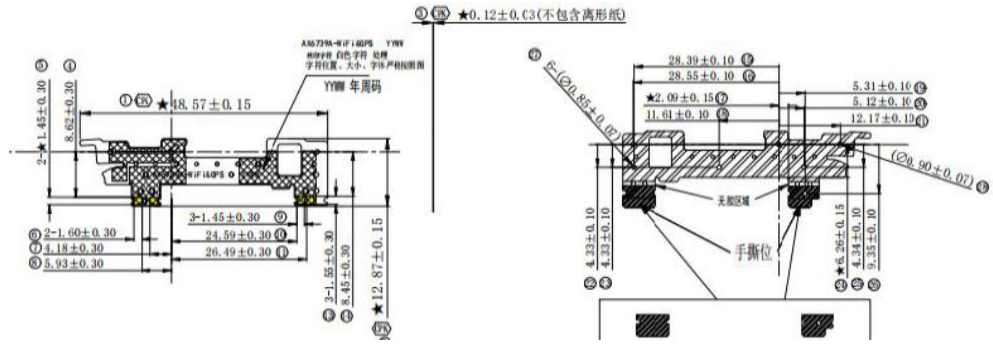
Name of test equipment	Model	Manufacturer	Cal.Due Date	Calibration Interval
Pattern Measurement Software	General Test	Ray Zone 1800	NA	NA
Network Analyzer	Agilent	E5071B	2023-07-05	One year

## 2. Antenna distribution

### 3. Antenna Pattern



GPS/WiFi/BT



Front

Back

## Antenna Gain

GPS/WIFI/BT

Frequency (MHz)	Peak Gain(dBi)
2400	-1.1
2410	-0.9
2420	-0.8
2430	-0.7
2440	-0.6
2450	-0.5
2460	-0.8
2470	-0.7
2480	-1.0
2490	-1.1
2500	-1.3
Frequency (MHz)	Peak Gain(dBi)
5150	-1.4
5200	-1.2
5250	-1.2
5300	-1.3
5350	-1.2
5400	-1.2
5450	-1.3
5500	-1.3

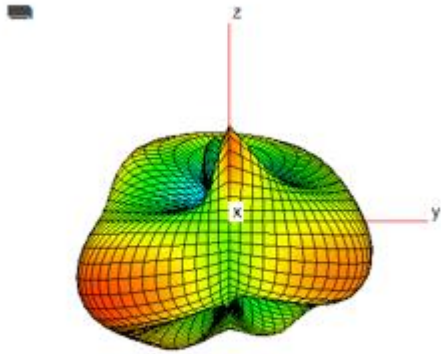
5550	-1.4
5600	-1.3
5650	-1.4
5700	-1.6
5750	-1.3
5800	-1.2
5850	-1.5

Frequency (MHz)	Peak Gain (dBi)
1550	-1.1
1555	-0.9
1560	-0.8
1565	-0.9
1570	-0.8
1575	-0.7
1580	-0.7
1585	-0.8
1590	-0.7
1595	-0.8
1600	-0.9

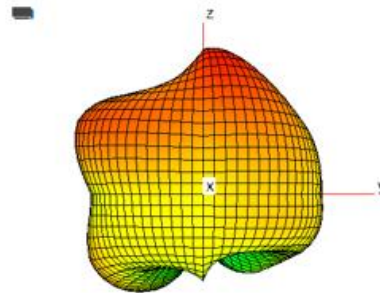
## 5.3D map

### WiFi Ant 3D

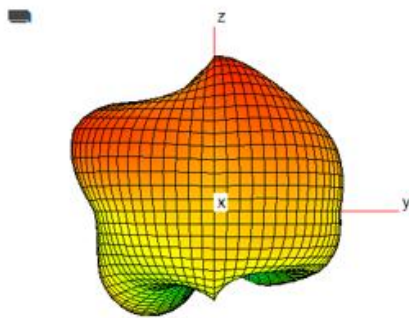
2400MHz



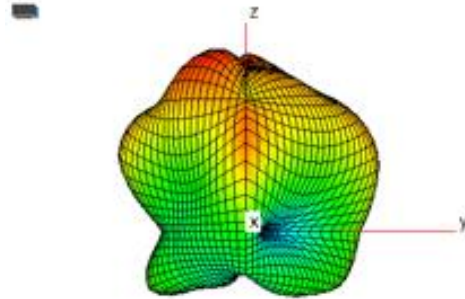
2450MHz



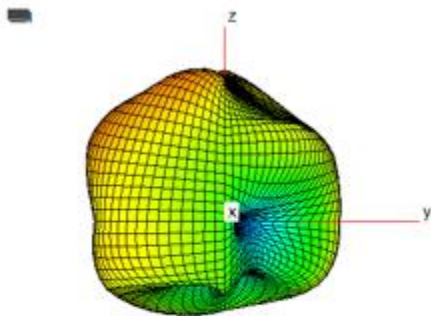
2500MHz



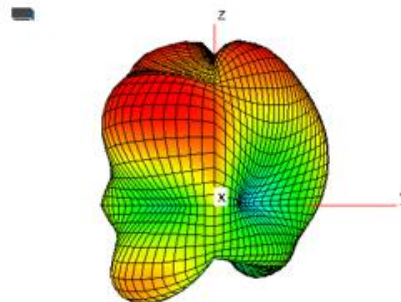
5150MHz



5550MHz

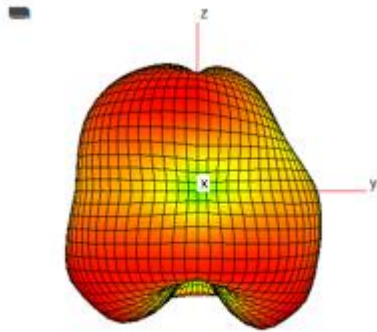


5850MHz

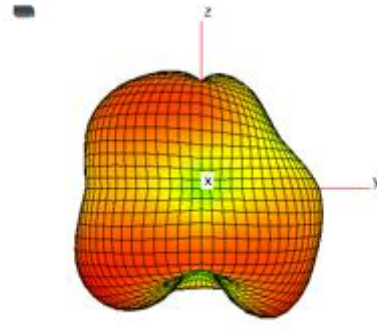


# GPS ANT 3D

1550MHZ



1575MHZ



1600MHZ

