



## **Antenna Specification**

Manufacture: TUYA

Product Name: CB3S Antenna

Antenna Type: PCB

Test Date: 2021.04.16

Tested by: Jianwei Wang

Approved by: Licco

## Content

|                               |    |
|-------------------------------|----|
| 1.General Description .....   | 3  |
| 2.Test Configurations.....    | 4  |
| 2.1 Test Environment .....    | 4  |
| 2.2 Test Equipment .....      | 4  |
| 2.3 Test Principle .....      | 4  |
| 3.Test Results .....          | 5  |
| 3.1 Gain and Efficiency ..... | 5  |
| 3.2 Radiation Pattern.....    | 6  |
| 4.Antenna Dimensions.....     | 9  |
| 5.EUT Photo .....             | 9  |
| 6.Test Setup Photo .....      | 10 |



## 1.General Description

|                |                                                                                               |
|----------------|-----------------------------------------------------------------------------------------------|
| Manufacturer   | Hangzhou Tuya Information Technology Co.,Ltd                                                  |
| Address        | Room 701,Building 3,More Center,No.87 GuDun Road,<br>Hangzhou, Zhejiang,China                 |
| Test Location  | Room 106, Building 3, Letong Science Park, No. 500,<br>Qiyi 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

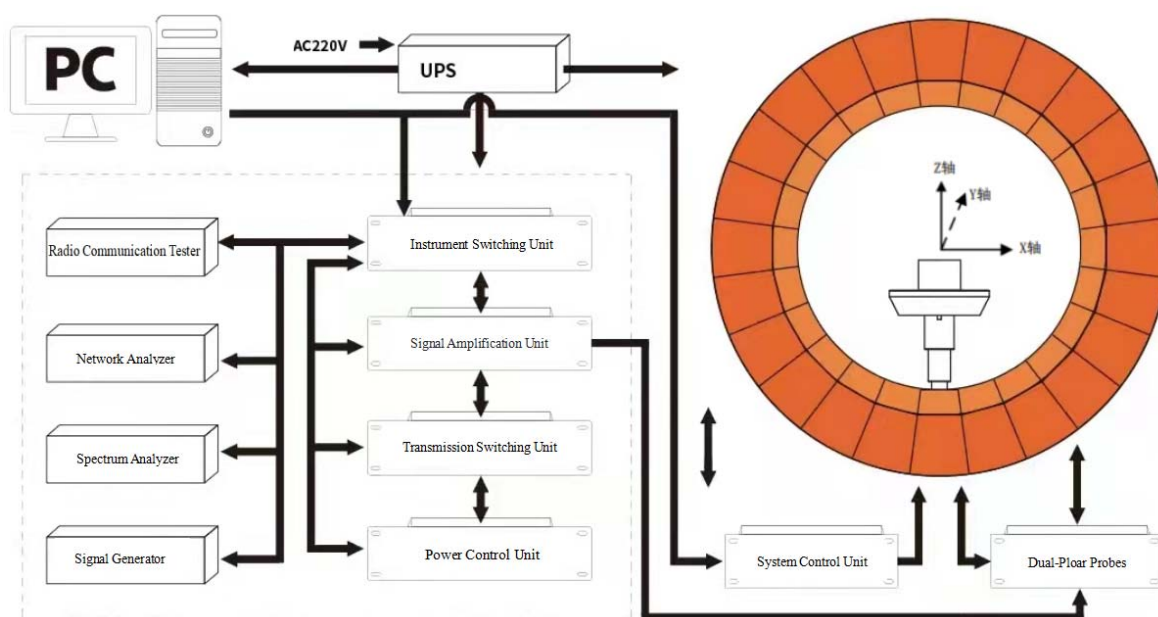
### 2.1 Test Environment

|                            |       |
|----------------------------|-------|
| 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



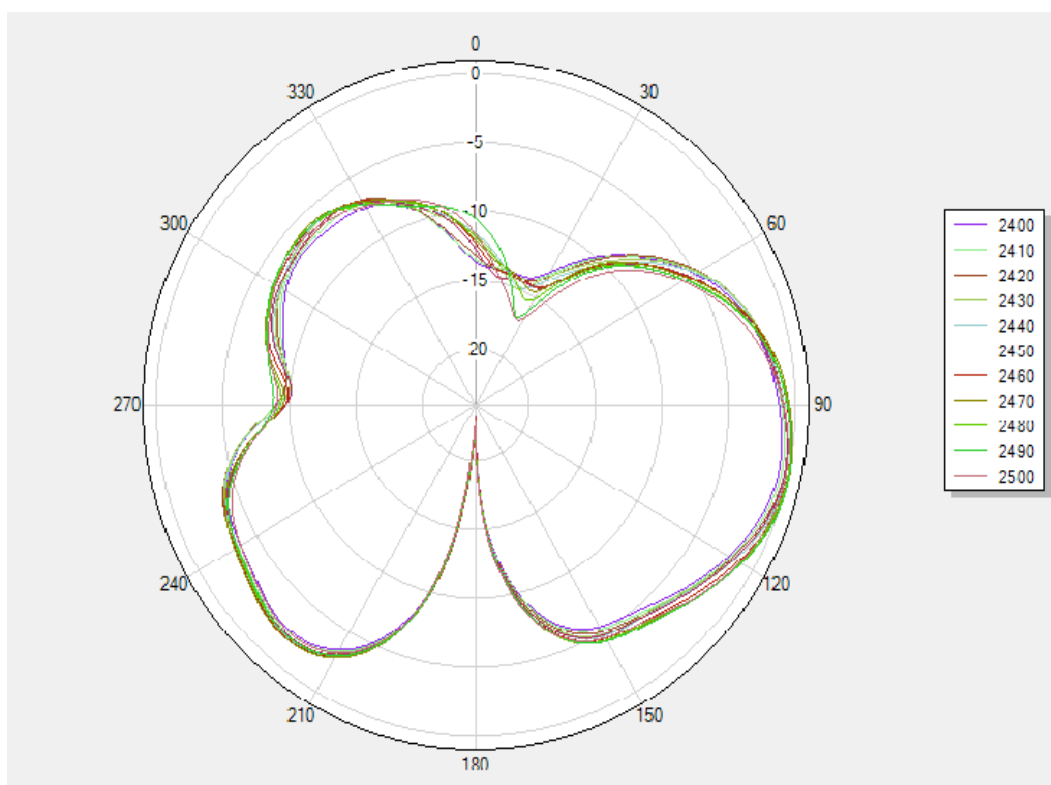
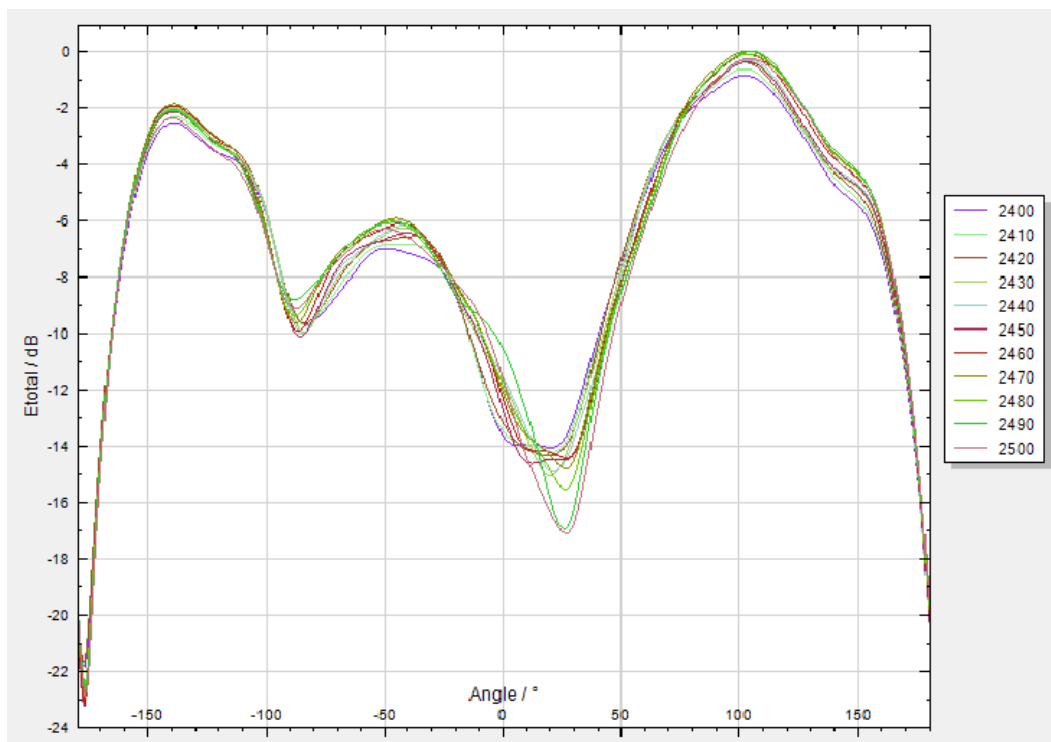
## 3.Test Results

### 3.1 Gain and Efficiency

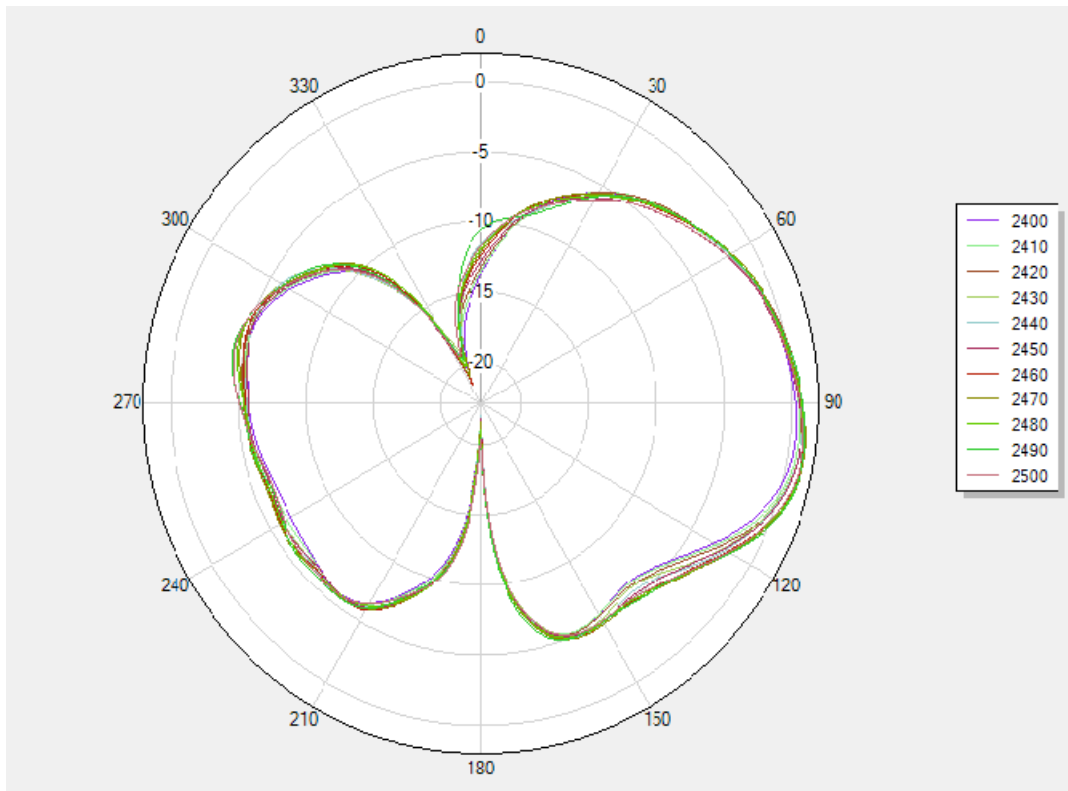
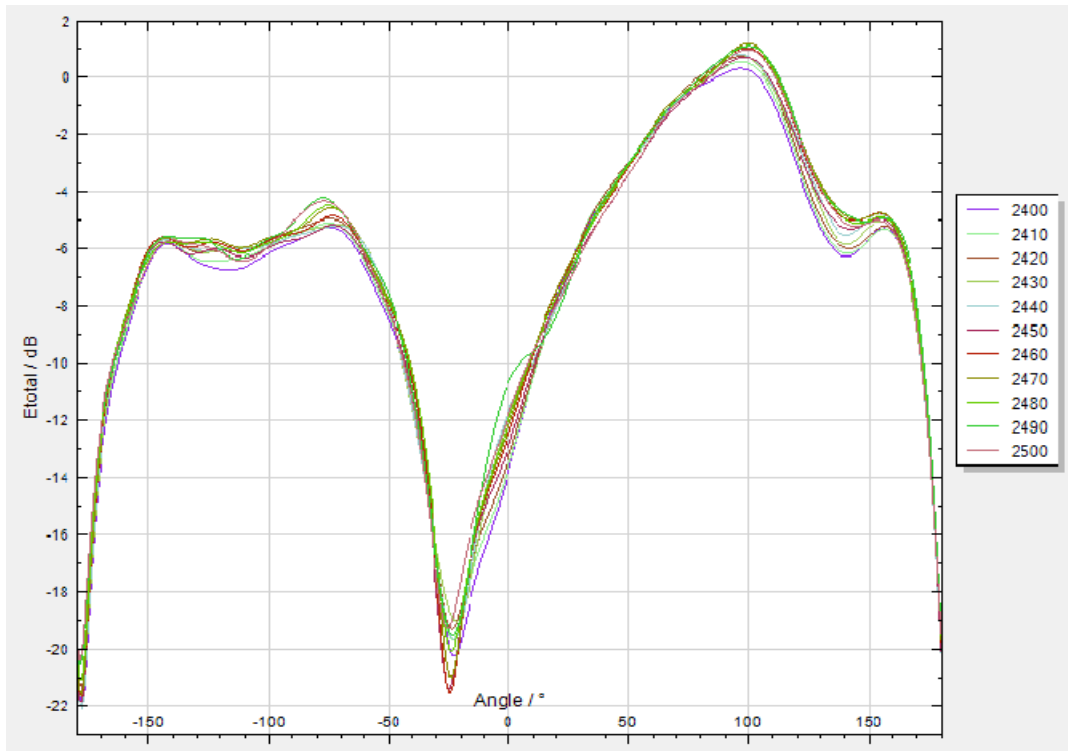
| Frequency (MHz) | Peak Gain (dBi) | Efficiency (%) |
|-----------------|-----------------|----------------|
| 2400            | 0.46            | 44.36          |
| 2410            | 0.71            | 45.71          |
| 2420            | 0.92            | 45.92          |
| 2430            | 0.91            | 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

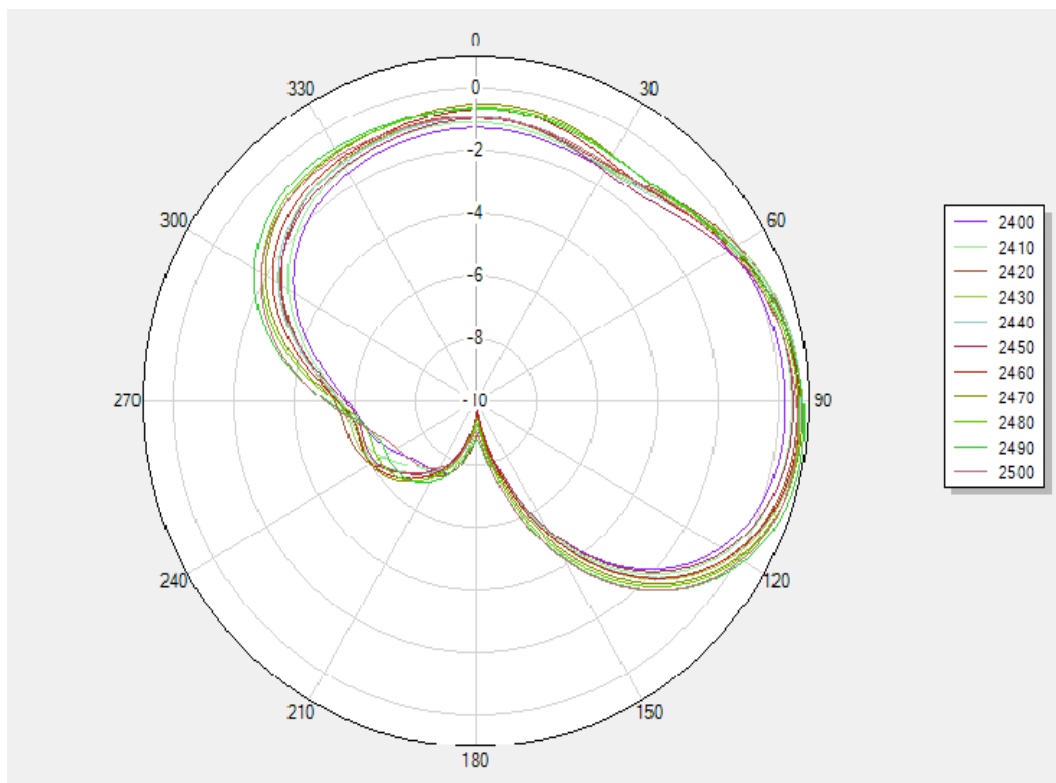
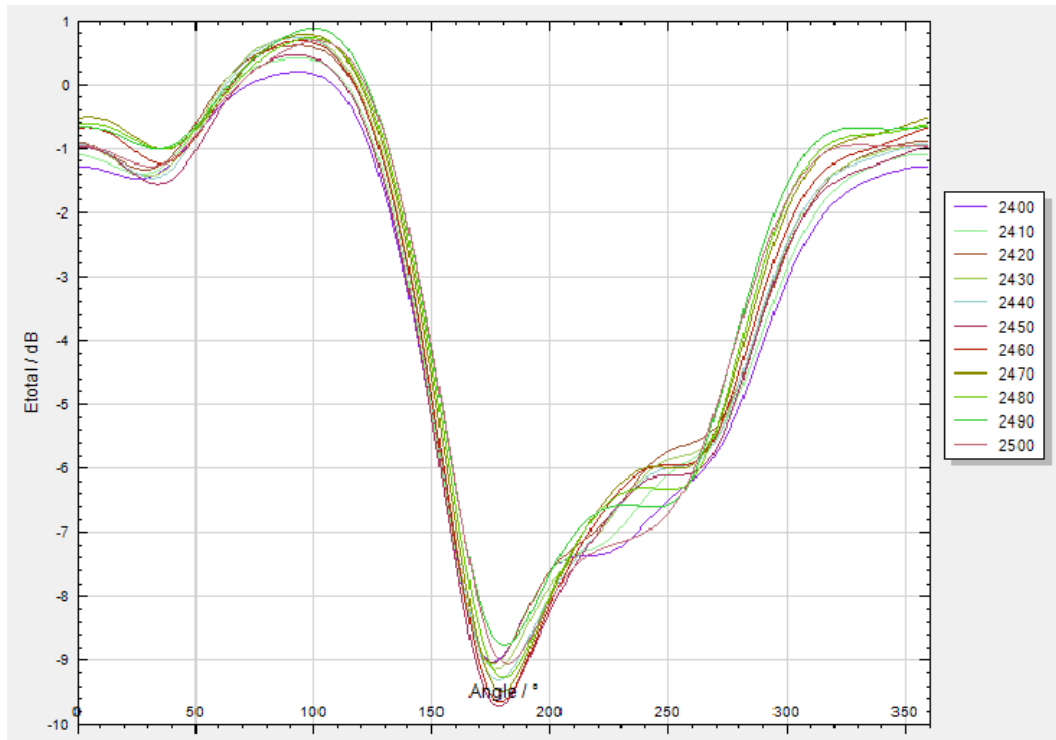
Phi 0



## Phi 90

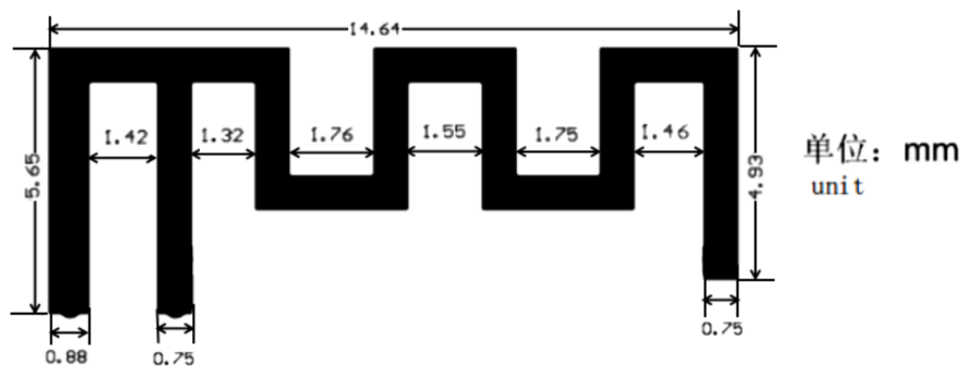


## Theta 90





## 4. Antenna Dimensions



## 5. EUT Photo



## 6.Test Setup Photo

