

## Antenna data sheet

|               |                   |
|---------------|-------------------|
| Product Name: | TH05              |
| Antenna Type: | PCB antenna       |
| Writer:       | Yinhua Zhang      |
| Maximum       | Gain: 2.21dBi     |
|               | Efficiency:32.96% |

Manufacturer : Hangzhou Tuya InformationTechnology Co.,Ltd

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,Hangzhou,Zhejiang,China

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## 1. General Description

|               |              |
|---------------|--------------|
| EUT Name      | TH05 Antenna |
| Wireless type | Bluetooth    |
| Antenna Type  | PCB antenna  |
| Dimensions    | Appendix A   |

## 2. Technical Information

|                 |                       |
|-----------------|-----------------------|
| Frequency Range | 2402MHz~2480MHz       |
| Test Frequency  | 2400,2410.....2500MHz |

## 3. Test Standards

| Identity      | Document Title                                |
|---------------|-----------------------------------------------|
| IEEE 149-1979 | IEEE Standard Test Procedures<br>for Antennas |

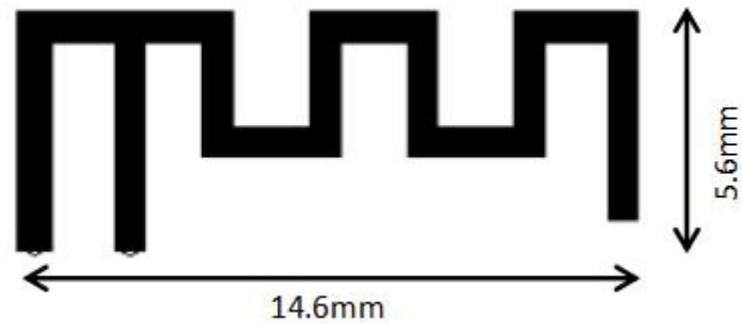
## 4. Test Item

| Report Section | Description                   |
|----------------|-------------------------------|
| Appendix B     | TH05 /VSWR                    |
| Appendix C     | Gain and Efficiency           |
| Appendix D     | Radiation Pattern (1D and 3D) |

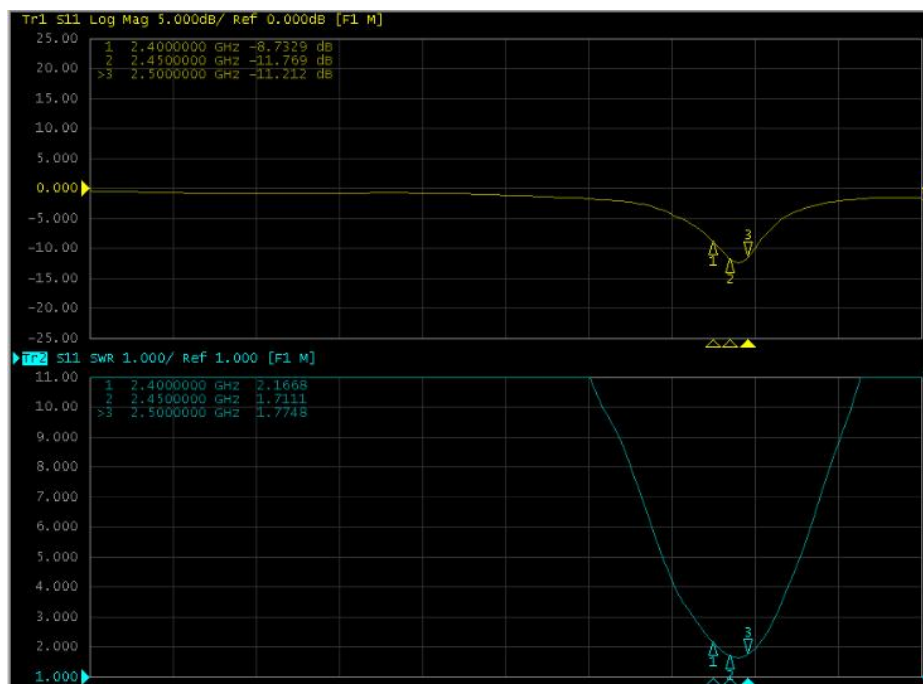
## 5. Test Photo

| Report Section | Description      |
|----------------|------------------|
| Appendix E     | Test Setup Photo |

## Appendix A Antenna Dimension



## Appendix B S11/VSWR

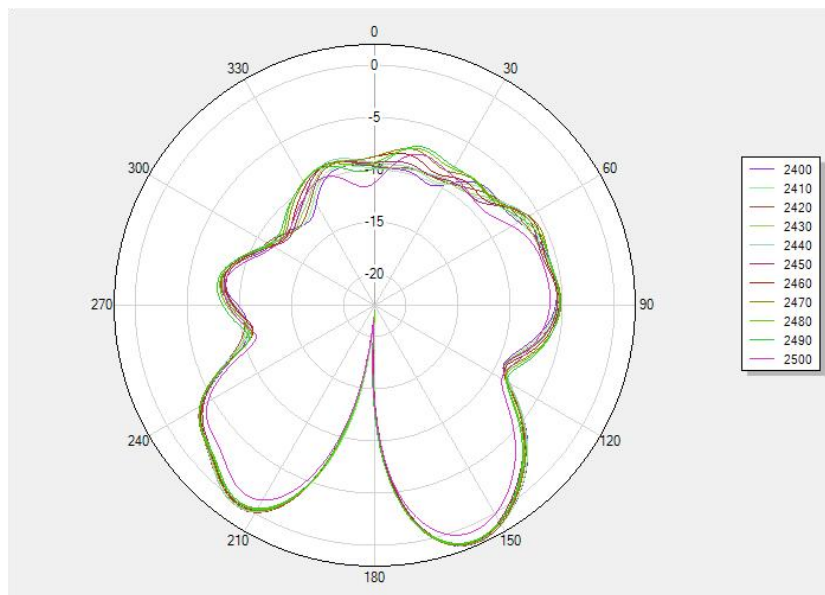
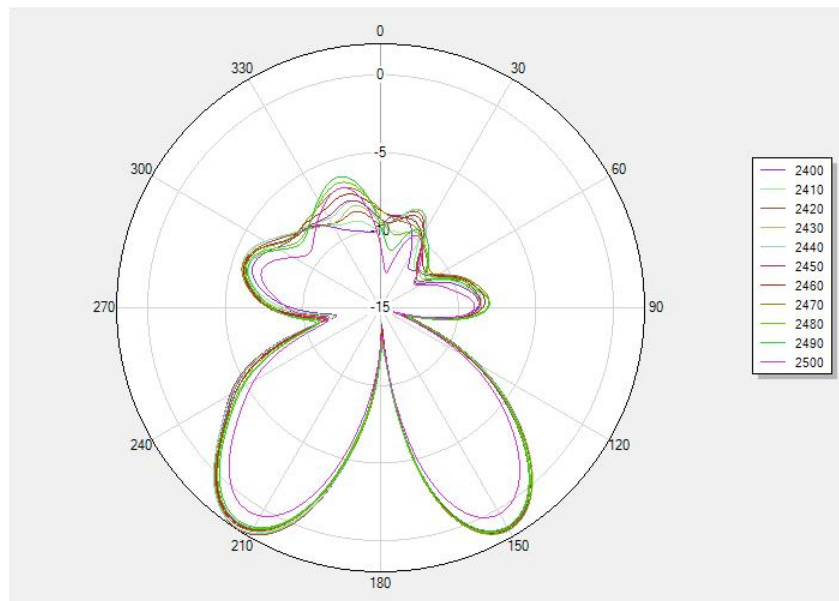


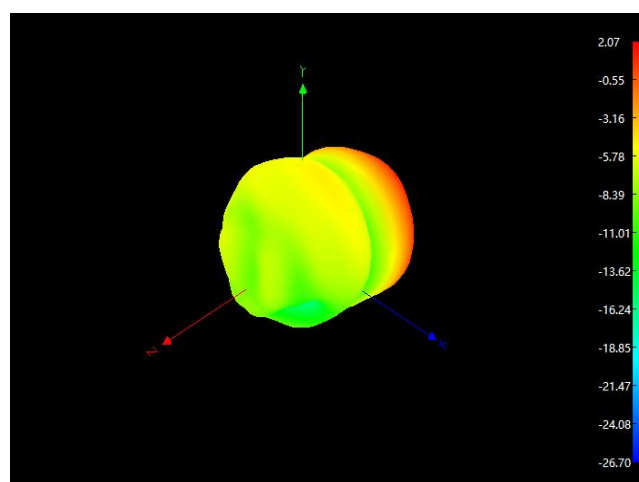
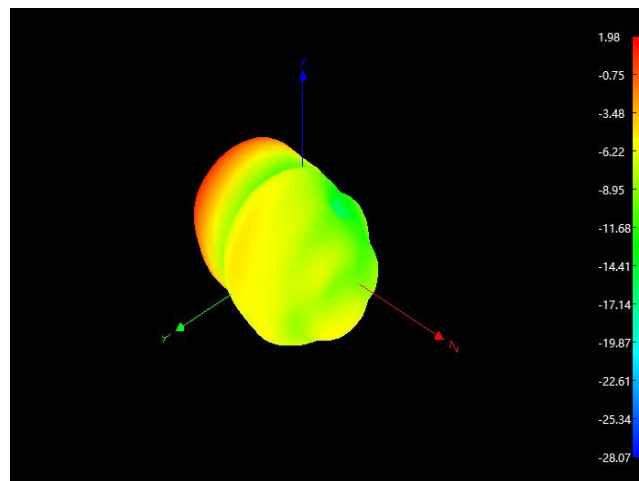
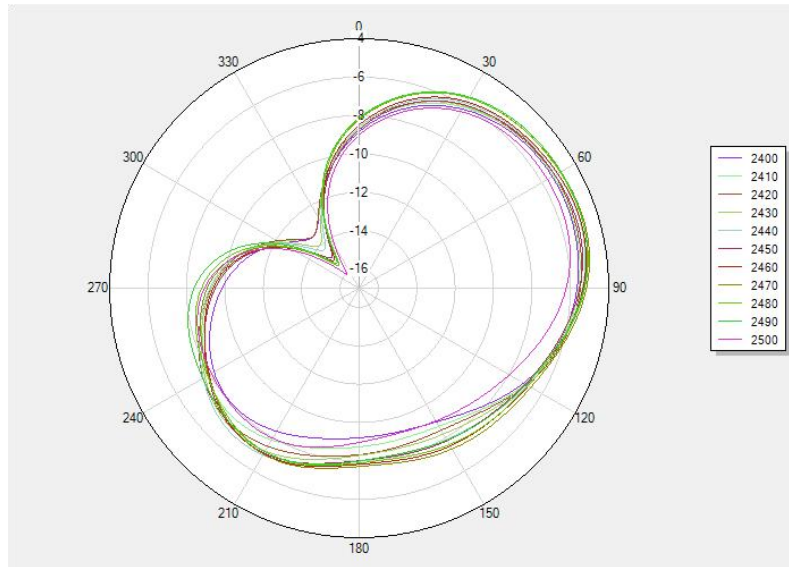
| Frequency (MHz) | 2400  | 2450   | 2500   |
|-----------------|-------|--------|--------|
| Return Loss     | -8.73 | -11.76 | -11.21 |
| VSWR            | 2.16  | 1.71   | 1.77   |

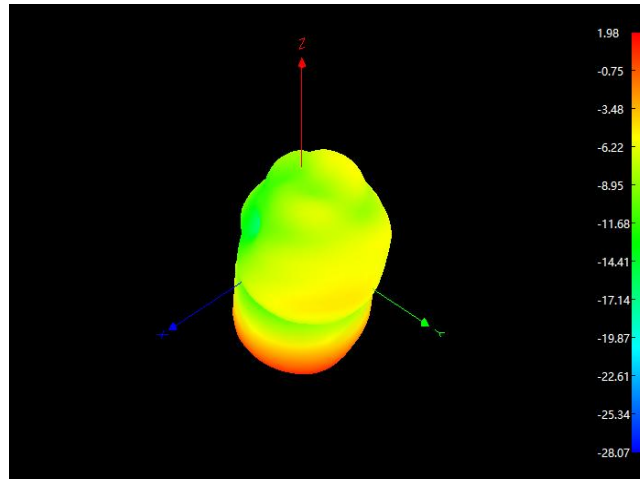
## Appendix C Gain and Efficiency

| Frequency (MHz) | Efficiency(%) | Gain (dBi) |
|-----------------|---------------|------------|
| 2400            | 32.36%        | 2.11       |
| 2410            | 32.3%         | 2.18       |
| 2420            | 32.1%         | 2.21       |
| 2430            | 32.4%         | 2.06       |
| 2440            | 32.9%         | 2.07       |
| 2450            | 30.9%         | 1.91       |
| 2460            | 30.8%         | 2.04       |
| 2470            | 30.7%         | 2.09       |
| 2480            | 31.6%         | 1.98       |
| 2490            | 30.6%         | 1.91       |
| 2500            | 30.5%         | 1.03       |

## Appendix D Radiation Pattern(1D and 3D)







## Appendix E Test Setup Photo

