

# SPECIFICATION

## SHEET FOR APPROVAL

(Revision: R: A0)

|  |           |              |  |
|--|-----------|--------------|--|
|  | CUSTOMER  | HESUNG       |  |
|  | CS P/N    | DR-HAC013S   |  |
|  | PART NAME | WIFI antenna |  |
|  | FREQUENCY | 2400~2500MHz |  |
|  | ZTX NO.   | 2.00000641   |  |
|  | DATE      | 2023-12-22   |  |

| CUSTOMER      |               |               |                    |
|---------------|---------------|---------------|--------------------|
| QA<br>CHECKED | ME<br>CHECKED | RF<br>CHECKED | MANAGER<br>CHECKED |
|               |               |               |                    |

Remark:

Sign:

| Shenzhen ZTX Communication Technology Co., Ltd |                    |               |               |        |
|------------------------------------------------|--------------------|---------------|---------------|--------|
| MANAGER<br>CHECKED                             | MANAGER<br>CHECKED | ME<br>CHECKED | RF<br>CHECKED | LISTER |
|                                                |                    | 柯友杰           | 刘刚            |        |



Shenzhen ZTX Communication Technology Co., Ltd

post: 518000  
fax: 0755-27588045

tel: 0755-27588320  
<http://www.chinaztx.com>

# ANTENNA SPECIFICATION

CUS P/N :DR-HAC008S WIFI

Application Date:Dec,22,2023

Rev: R:A0

ZTX P/N :DR-HAC008S WIFI

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## Revision history

| edition | date       | state         |
|---------|------------|---------------|
| A0      | 2023-12-22 | first edition |
|         |            |               |
|         |            |               |
|         |            |               |

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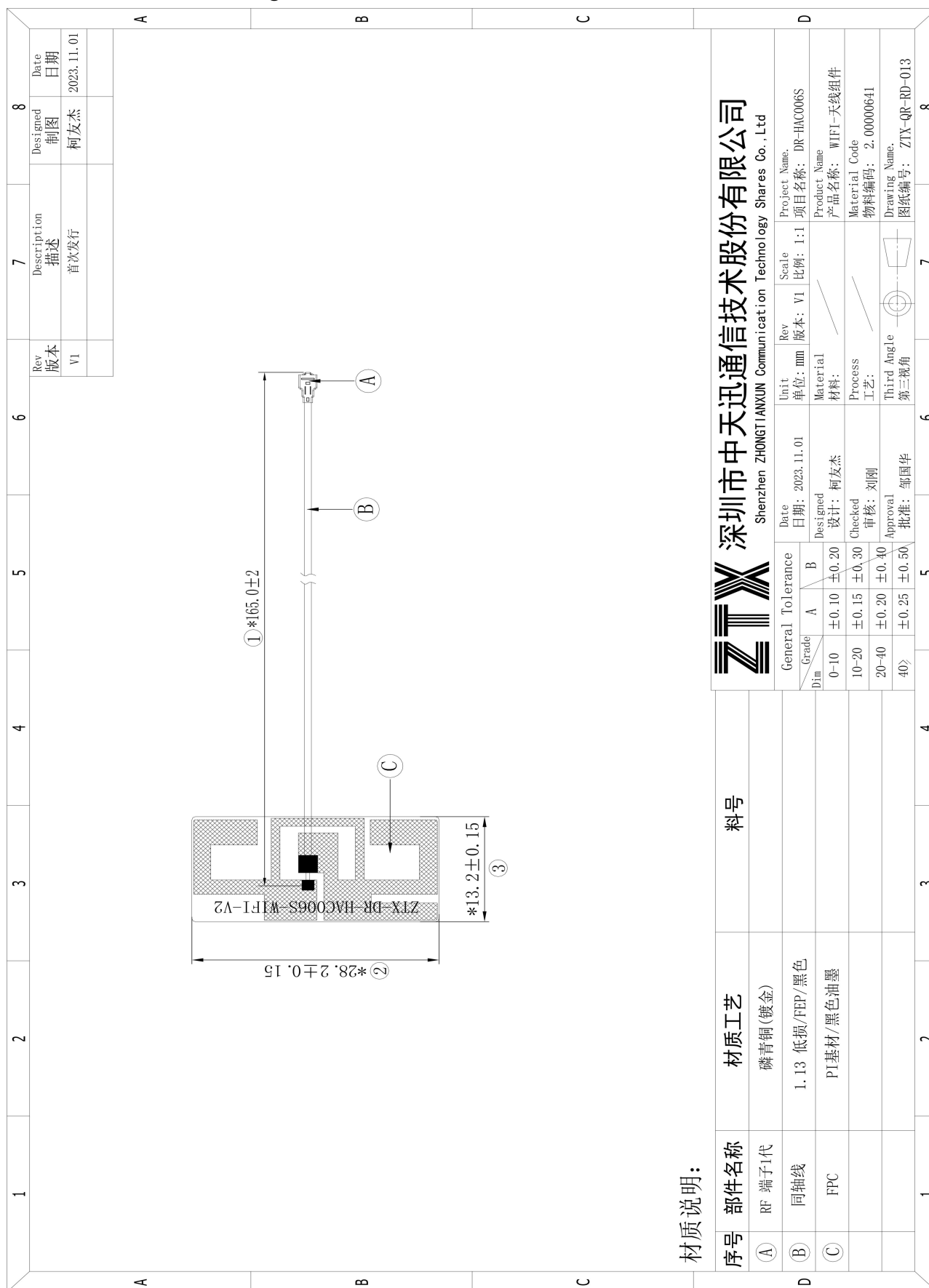
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## 1. Mechanical Specification

## 1-1 Mechanical Configuration (WIFI)



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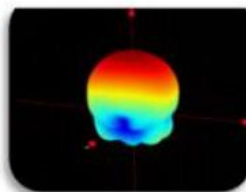
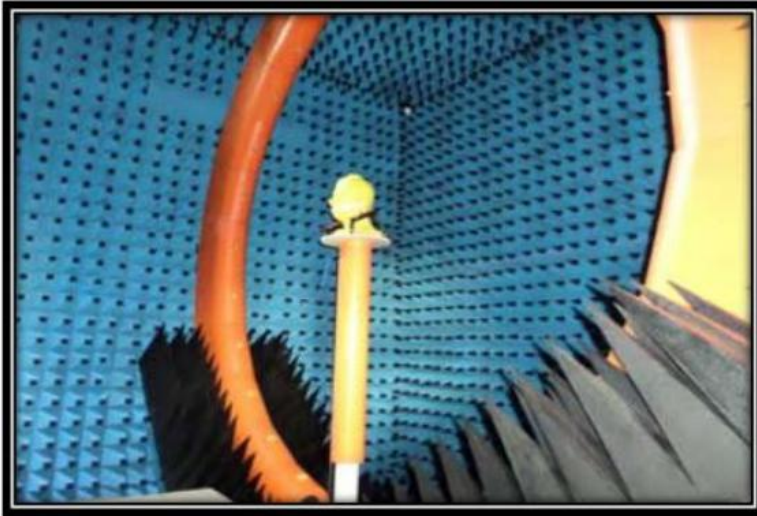
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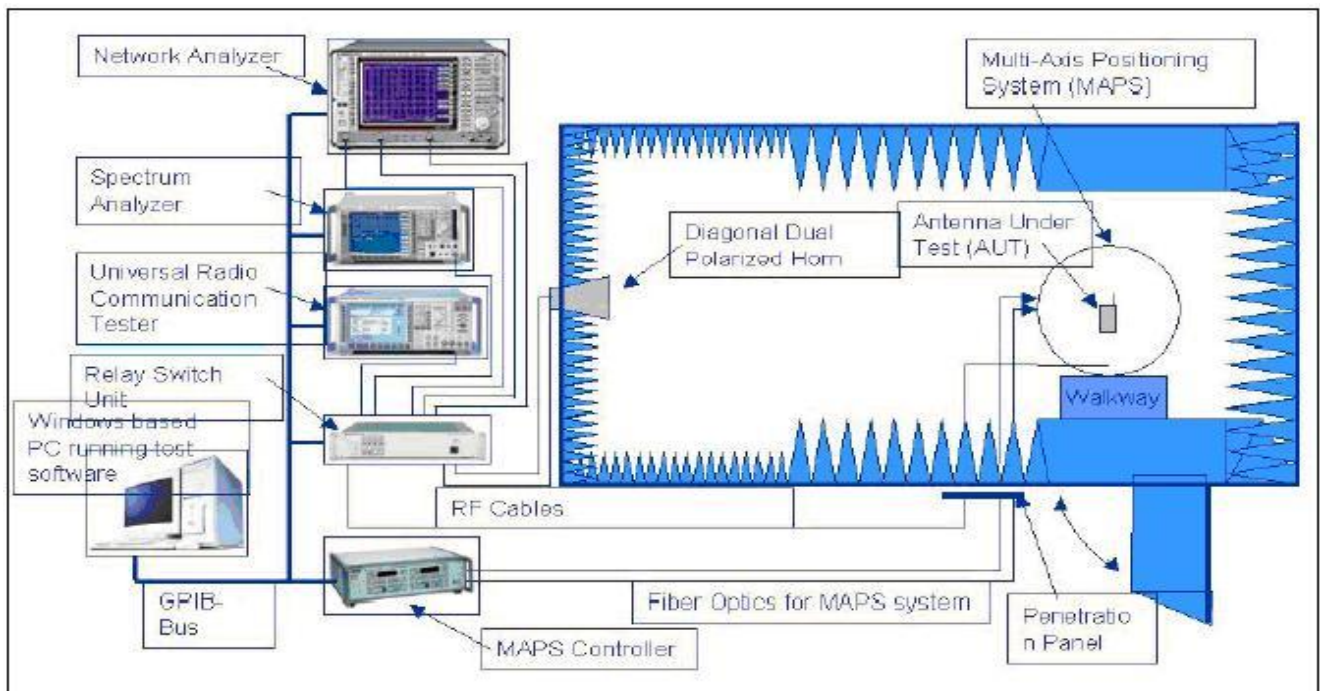
## 2. Test equipment



Owned 6 microwave dark room, equipped 2 sets world leading France Satimo SG24 OTA certification test systems (one in SHENZHEN, another one in Shanghai), ETS OTA Standard test system, Blue test reverberation test system which is High repeatability, high accuracy and high resolution. It can quickly provide accurate test reports, fully meet the CTIA standards.

Testing range:

Support active, passive testing of GSM/CDMA/WCDMA/TD-SCDMA/LTE/WIFI/WLAN/WiMax/BT/GPS/MIMO/UWB within 0.4-6G.



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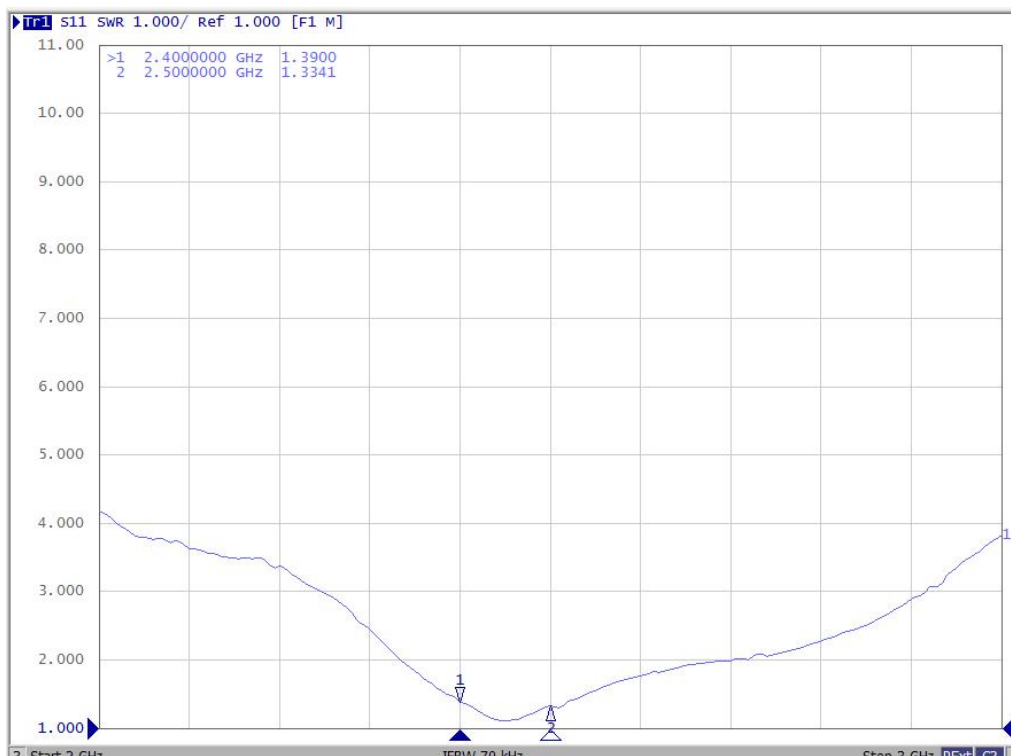
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## 3.Test Results Summary 3-1 Active Test

| 11b | Channels | TRP (11M)  | TIS (11M)  |
|-----|----------|------------|------------|
|     | 1        | 15.58      | -83.67     |
|     | 6        | 15.68      | -83.82     |
|     | 11       | 15.89      | -83.73     |
| 11g | Channels | TRP (54M)  | TIS (54M)  |
|     | 1        | 12.03      | -70.78     |
|     | 6        | 12.11      | -70.77     |
|     | 11       | 12.45      | -70.86     |
| 11n | Channels | TRP (MCS7) | TIS (MCS7) |
|     | 1        | 11.89      | -66.44     |
|     | 6        | 12.07      | -66.53     |
|     | 11       | 12.38      | -66.88     |

## 3-2 VSWR



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## 3-3 No-source test data

| Frequency | Efficiency | Efficiency<br>(dB) | Gain (dB) |
|-----------|------------|--------------------|-----------|
| 2400MHz   | 63%        | -1.98              | 5.95      |
| 2410MHz   | 64%        | -1.95              | 5.52      |
| 2420MHz   | 65%        | -1.85              | 5.63      |
| 2430MHz   | 66%        | -1.83              | 5.53      |
| 2440MHz   | 65%        | -1.89              | 5.58      |
| 2450MHz   | 65%        | -1.86              | 5.74      |
| 2460MHz   | 66%        | -1.83              | 5.91      |
| 2470MHz   | 65%        | -1.88              | 6.02      |
| 2480MHz   | 65%        | -1.89              | 5.92      |
| 2490MHz   | 64%        | -1.96              | 5.96      |
| 2500MHz   | 63%        | -2.01              | 6.06      |

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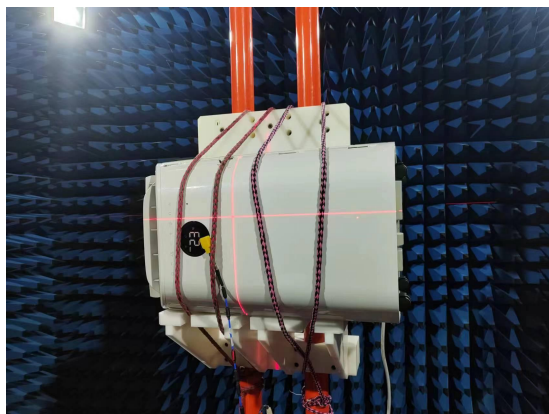
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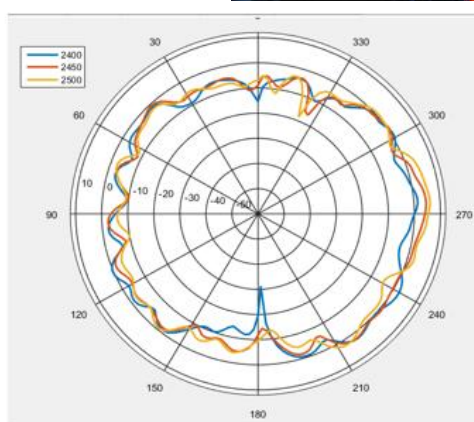
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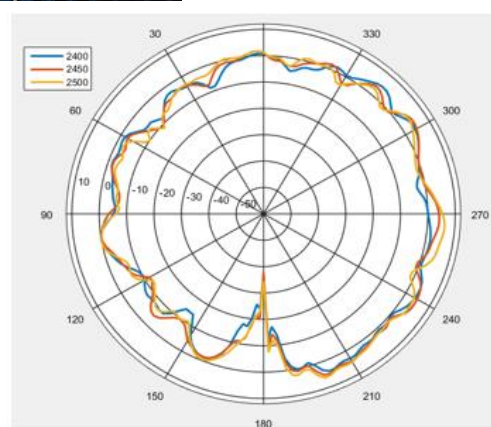
## 3-4 2D/3D Radiation Pattern Results



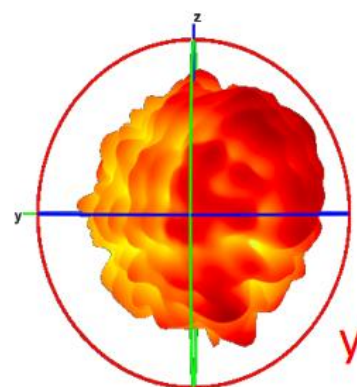
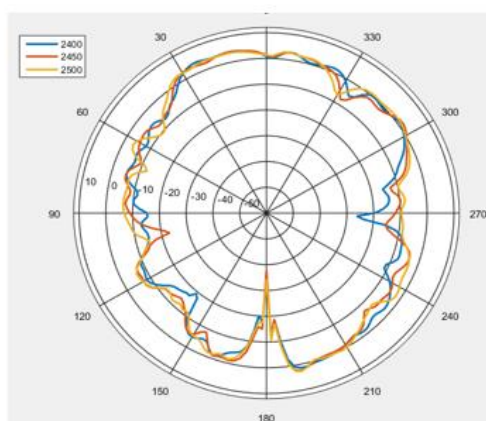
xoy



yoZ



XOZ



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## 3-5 Environmental treatment

