

# Shenzhen Xiangboyi Technology Co. Ltd

## Antenna Specification

|                   |                 |
|-------------------|-----------------|
| <b>Customer</b>   | SaiWei          |
| <b>Project</b>    | <b>T182SWAC</b> |
| <b>Project NO</b> | XBY230357-BT    |

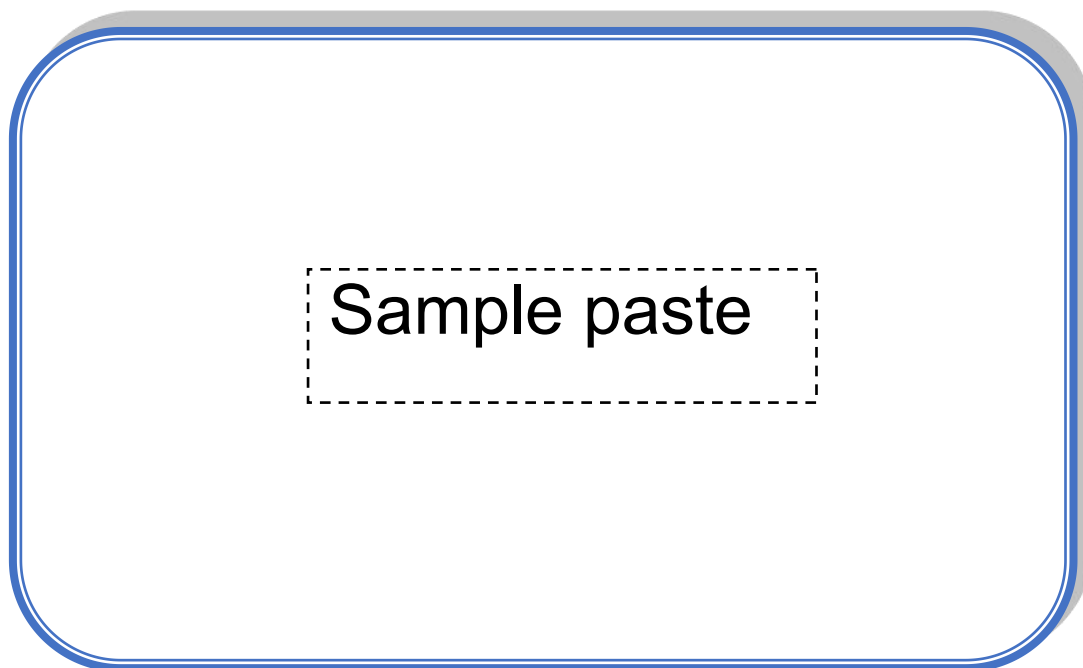
**Shenzhen Xiangboyi Technology Co. Ltd**

Date: 2023/12/13

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**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuanggu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.



| Customer confirmation |    |         |          |
|-----------------------|----|---------|----------|
| Engineer              | PM | Quality | Approval |
|                       |    |         |          |

| Supplier confirmation |    |         |          |
|-----------------------|----|---------|----------|
| ME                    | RF | Examine | Approval |
|                       |    |         |          |

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# Catalogue

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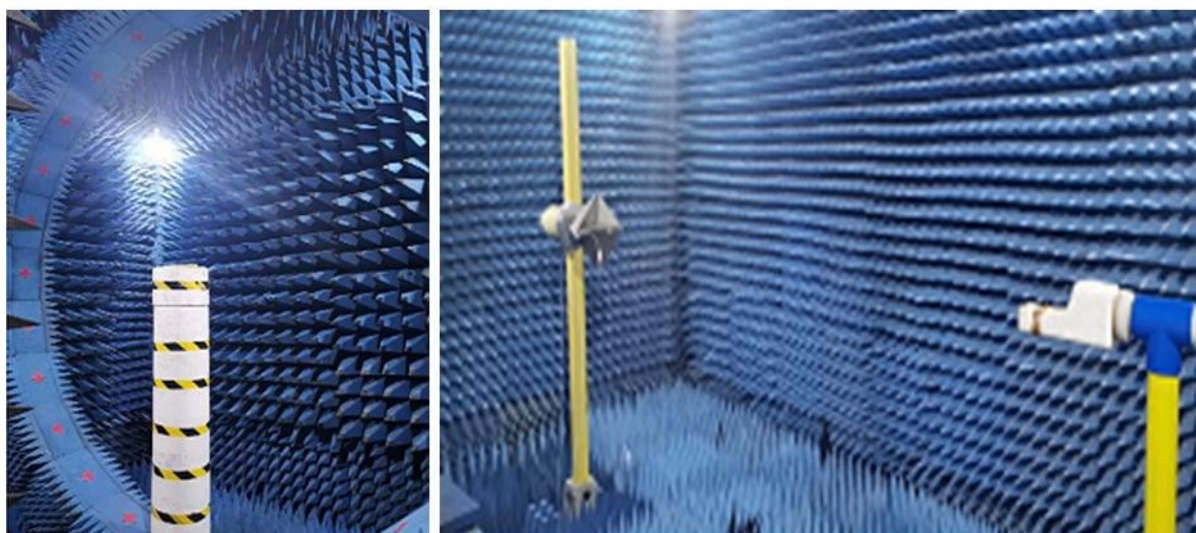
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# 1 Test System and Equipment

|                               | Test items                   | equipment                                                                  |
|-------------------------------|------------------------------|----------------------------------------------------------------------------|
| 1: S parameter                | 1. Return loss<br>2. VSWR    | Network analyzer:<br>A338/A333/HP8753D                                     |
| 2: Active test                |                              | Comprehensive test instrument:<br>Agilent 8960/ CMW500                     |
| 3: Radiation mode<br>and gain | 1. Radiation mode<br>2. Gain | 1. Shielding room:<br>7x4x3 m (ETS-3D)<br>2. Network analyzer:<br>HP 8753D |



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## 2 Product Description

| Technical requirements       | Technical index                | Remarks          |
|------------------------------|--------------------------------|------------------|
| <b>Band</b>                  | BT:2. 4G                       |                  |
| <b>Range Of Frequency</b>    | 2400–2500Mhz ;                 |                  |
| <b>VSWR</b>                  | <2. 0                          | Center Frequency |
| <b>Impedance</b>             | 50Ω                            |                  |
| <b>Polarization</b>          | Linear polarization            |                  |
| <b>operating temperature</b> | -32℃ / +55℃                    |                  |
| <b>storage temperature</b>   | -55℃ / +85℃                    |                  |
| <b>Salt Fog</b>              | 24h(24h alternating wet & dry) |                  |
| <b>RoHS Compliant</b>        | yes                            |                  |

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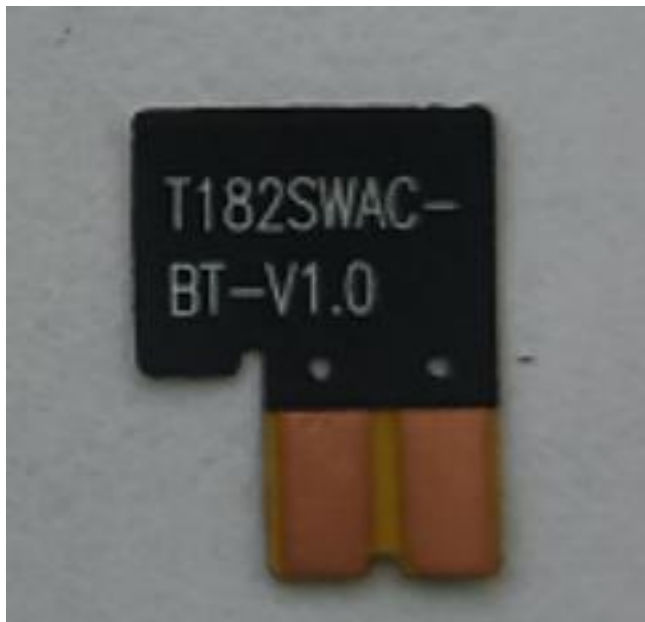
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### 3 Device Description

The whole machine photo



Antenna photo



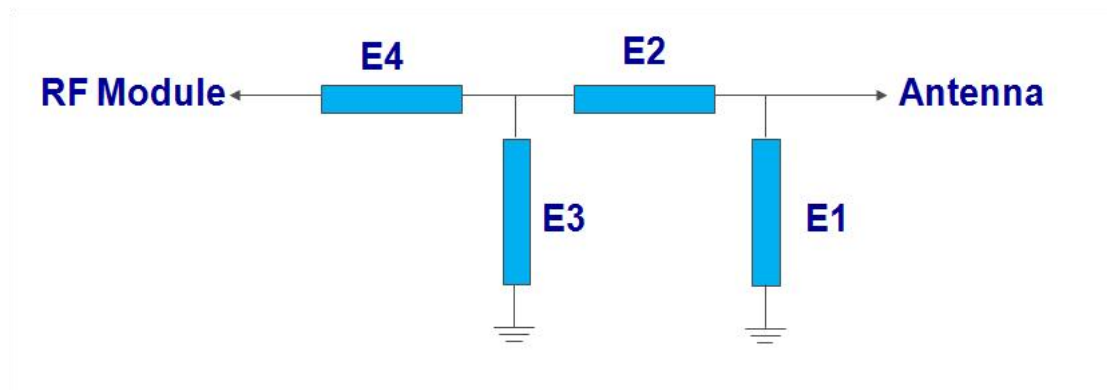
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## 4 Matching Circuits



| Element  | Value | Vender |
|----------|-------|--------|
| E1(0402) | NA    |        |
| E2(0402) | 0Ω    |        |
| E3(0402) | NA    |        |
| E4(0402) | 0Ω    |        |

Original match unchanged.

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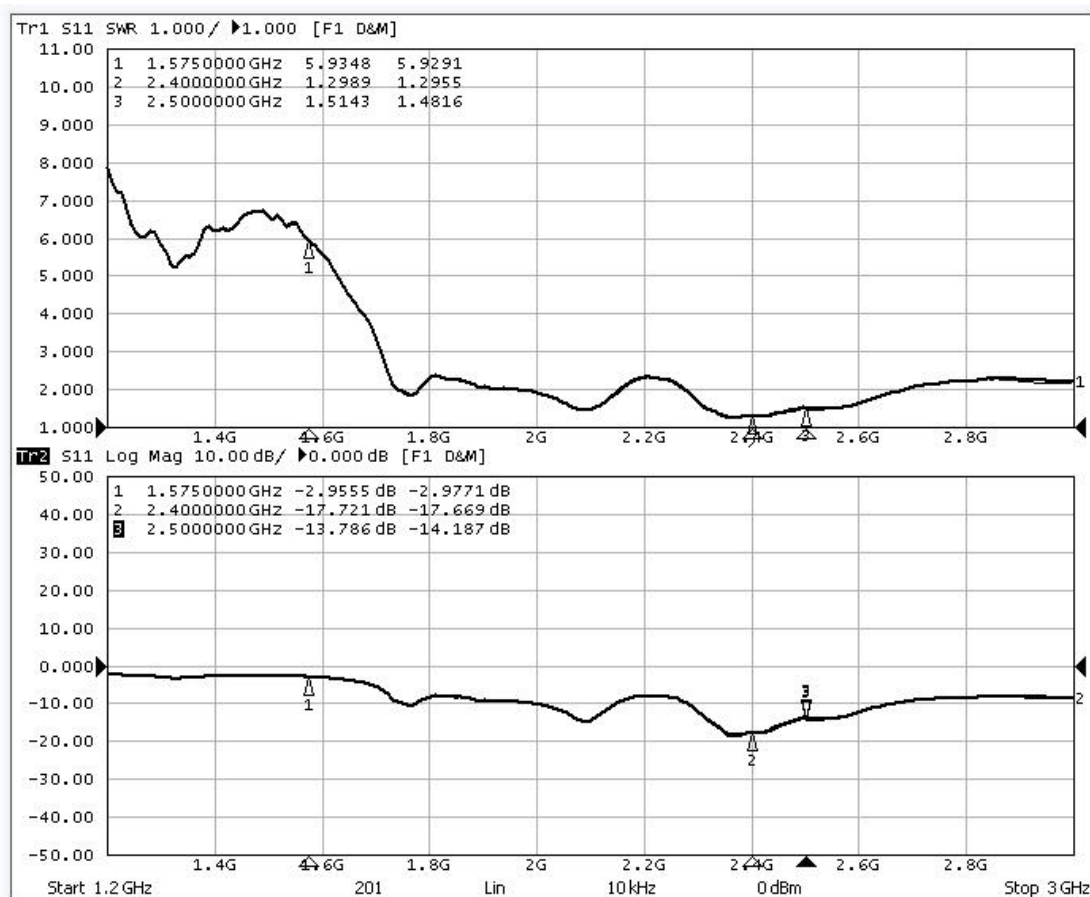
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## 5 Test Data

| Freq<br>(MHz) | Gain<br>(dBi) | Efficien<br>cy<br>(dB) | Efficien<br>cy<br>(%) |
|---------------|---------------|------------------------|-----------------------|
| 2400          | 2.05          | -3.38                  | 45.96                 |
| 2410          | 0.69          | -4.42                  | 36.17                 |
| 2420          | 0.78          | -4.06                  | 39.29                 |
| 2430          | 1.02          | -3.89                  | 40.83                 |
| 2440          | 1.32          | -3.78                  | 41.86                 |
| 2450          | 1.48          | -3.72                  | 42.47                 |
| 2460          | 1.52          | -3.72                  | 42.49                 |
| 2470          | 1.64          | -3.65                  | 43.12                 |
| 2480          | 1.62          | -3.59                  | 43.73                 |
| 2490          | 1.34          | -3.66                  | 43.08                 |
| 2500          | 1.07          | -3.77                  | 41.96                 |



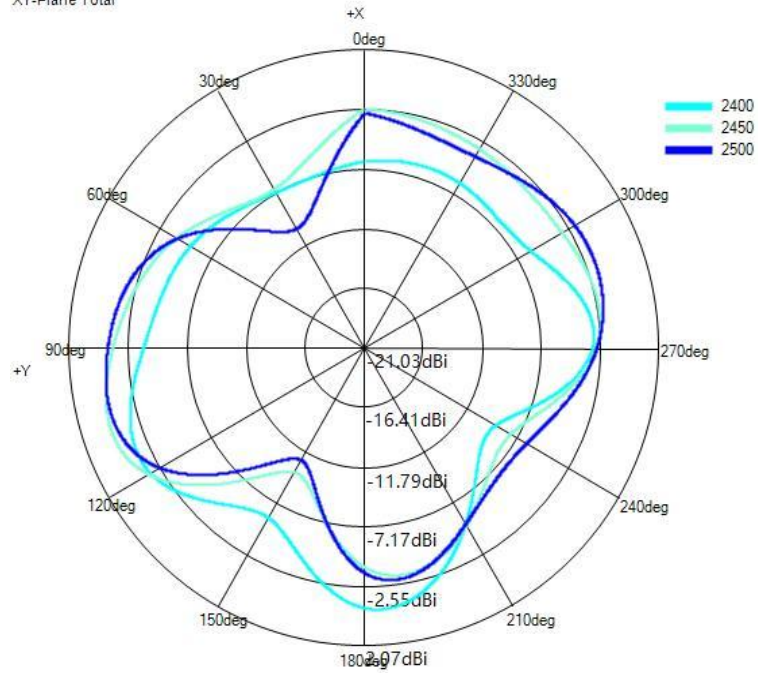
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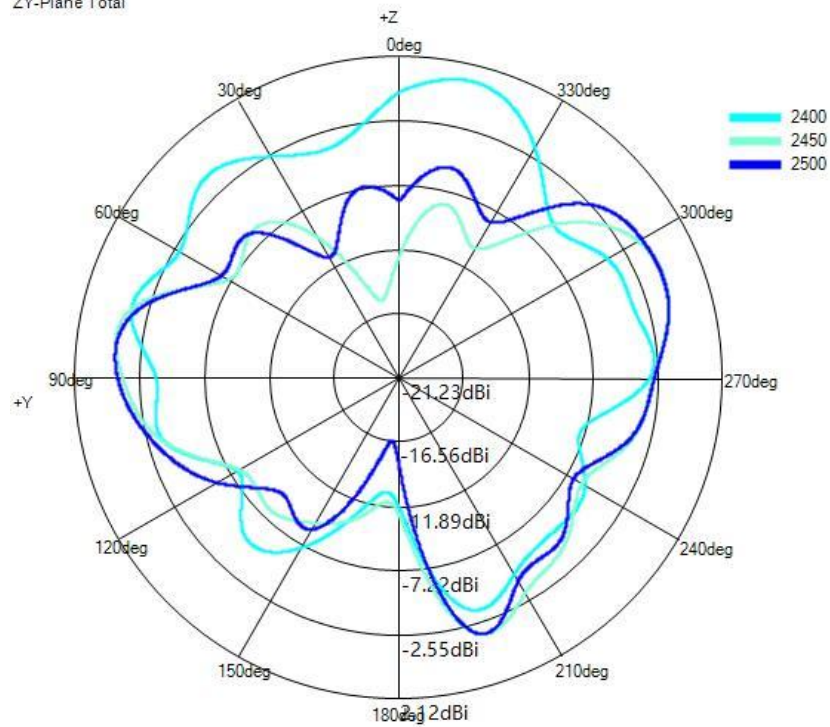
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XY-Plane Total



ZY-Plane Total



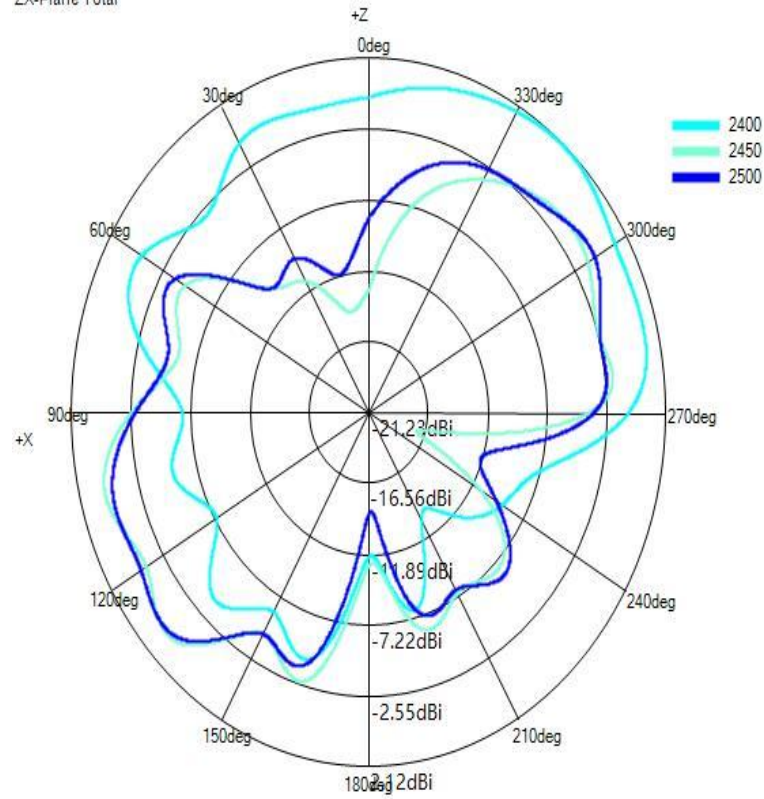
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ZX-Plane Total



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