

# 三合一天线规格书

## 3-in-1 antenna specification

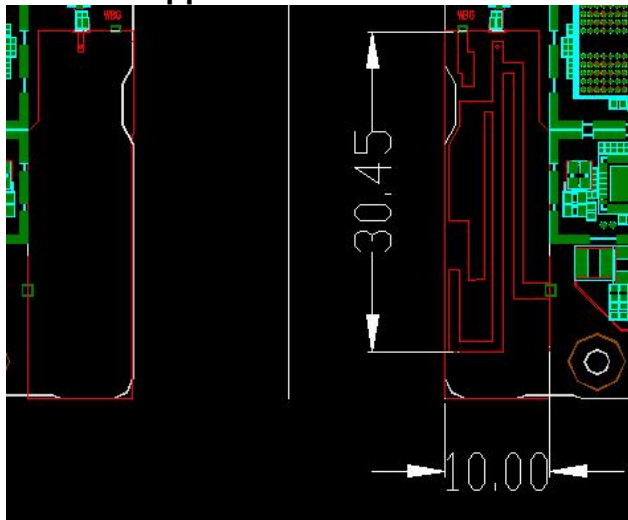
### 基本信息

#### General information

|                     |                       |
|---------------------|-----------------------|
| 制造商<br>Manufacturer | Be-comfortable        |
| 天线型号<br>Model Name  | N0211-GPS&WIFI&BT ant |
| 日期<br>Date          | 2025.06.10            |
| 版本<br>Version       | 1.0                   |
| .....               | .....                 |

### 天线外观

#### Antenna Appearance



### 技术规格

#### Technical Specifications

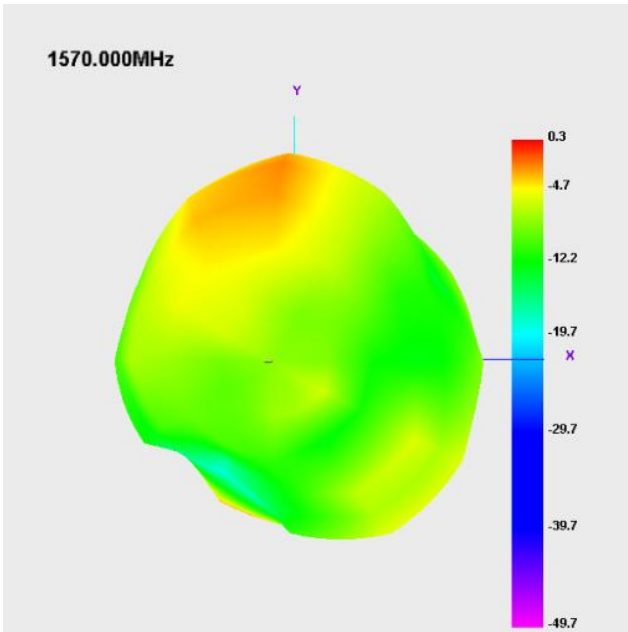
|                         |                                      |
|-------------------------|--------------------------------------|
| 频率范围<br>Frequency Range | 1575.42MHZ~2400-2500MHZ~5150-5850MHZ |
| 天线类型<br>Antenna Type    | PIFA                                 |
| 尺寸<br>Dimensions        | 30.45*10mm                           |
| 阻抗<br>Impedance         | 50 ohm                               |
| 最大增益<br>Maximum Gain    | 2.88dbi                              |
| 驻波比<br>VSWR             | ≤3                                   |
| .....                   | .....                                |

## Efficiency and gain

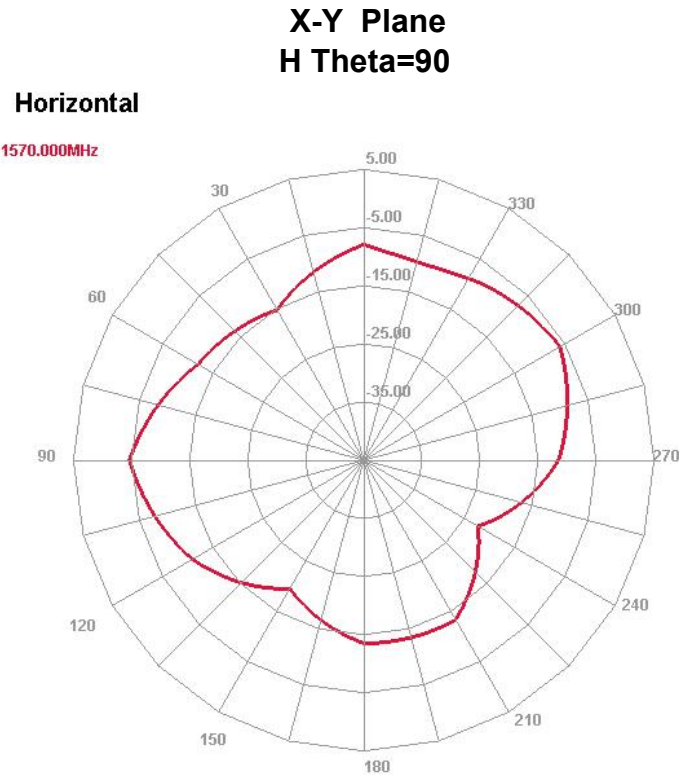
| Frequency (MHz) | Gain (dB) | Efficiency (%) |
|-----------------|-----------|----------------|
| 1560            | -0.14     | 26.87          |
| 1565            | 0.01      | 26.75          |
| 1570            | 0.29      | 26.33          |
| 1575            | 0.17      | 27.12          |
| 1580            | 0.02      | 26.02          |
| 1585            | -0.21     | 25.43          |
| 1590            | -0.39     | 25.05          |

| Frequency (MHz) | Gain (dB) | Efficiency (%) | Frequency (MHz) | Gain (dB) | Efficiency (%) |
|-----------------|-----------|----------------|-----------------|-----------|----------------|
| 2400            | -0.03     | 27.76          | 5150            | 2.75      | 41.75          |
| 2410            | 0.03      | 28.09          | 5250            | 2.66      | 39.69          |
| 2420            | 0.26      | 29.64          | 5350            | 2.81      | 43.46          |
| 2430            | 0.68      | 31.62          | 5450            | 2.76      | 41.62          |
| 2440            | 0.79      | 32.7           | 5550            | 2.88      | 44.63          |
| 2450            | 0.69      | 33.28          | 5650            | 2.75      | 44.52          |
| 2460            | 0.94      | 32.43          | 5750            | 2.4       | 45.97          |
| 2470            | 0.19      | 31.91          | 5850            | 2.64      | 46.91          |
| 2480            | 0.33      | 30.87          |                 |           |                |
| 2490            | 0.11      | 29.94          |                 |           |                |
| 2500            | 0.17      | 27.46          |                 |           |                |

Free space 3D radiation pattern



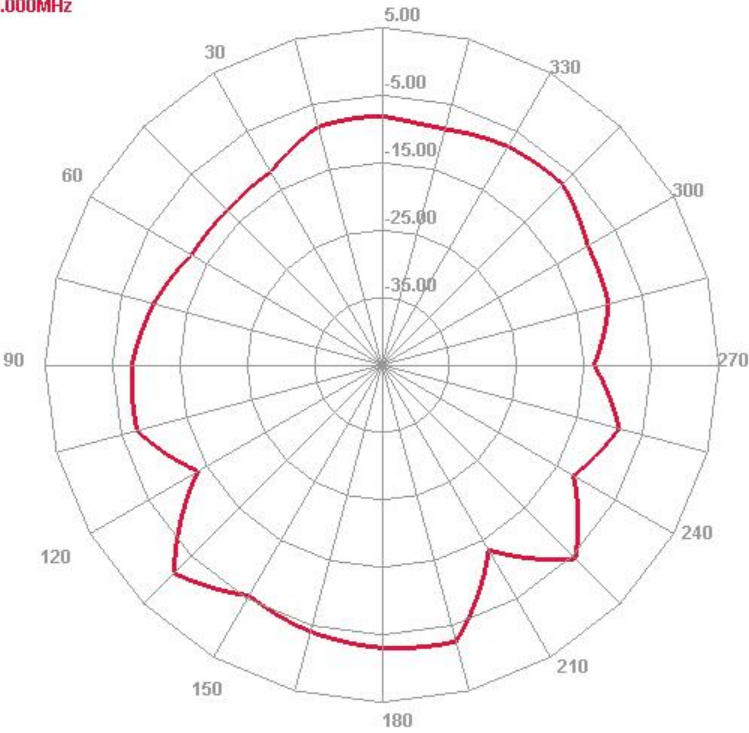
Free space 2D radiation pattern



**X-Z Plane**  
**V Phi=0**

**E1 Face**

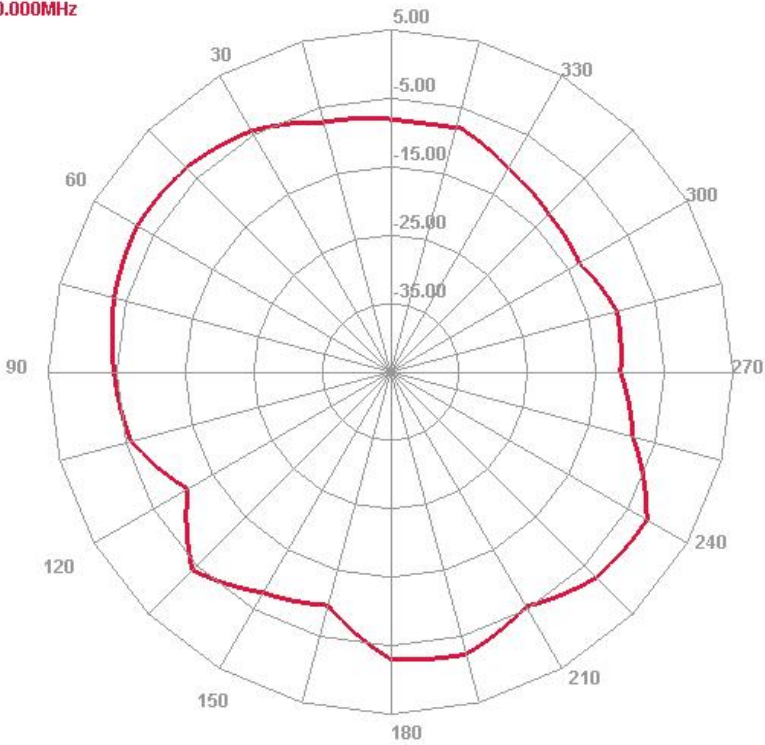
1570.000MHz

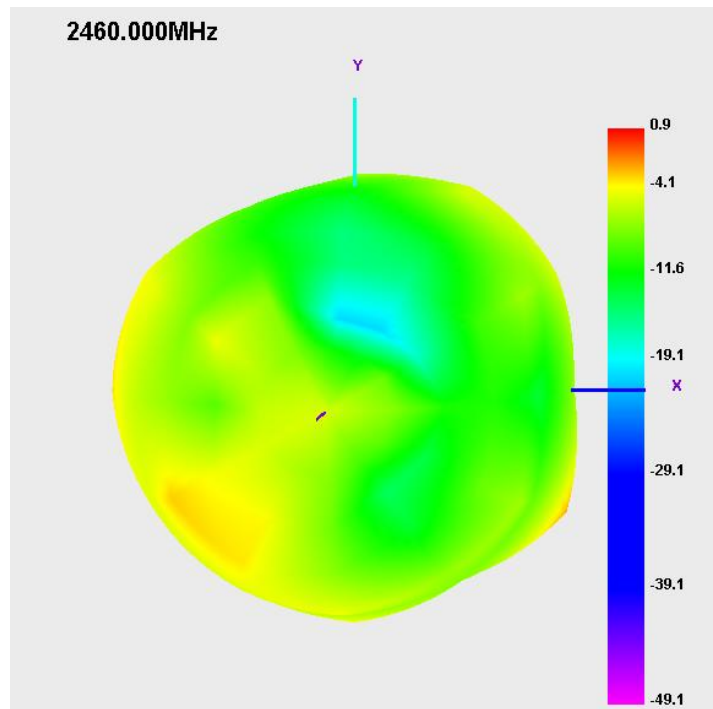


**Y-Z Plane**  
**V Phi=90**

**E2 Face**

1570.000MHz

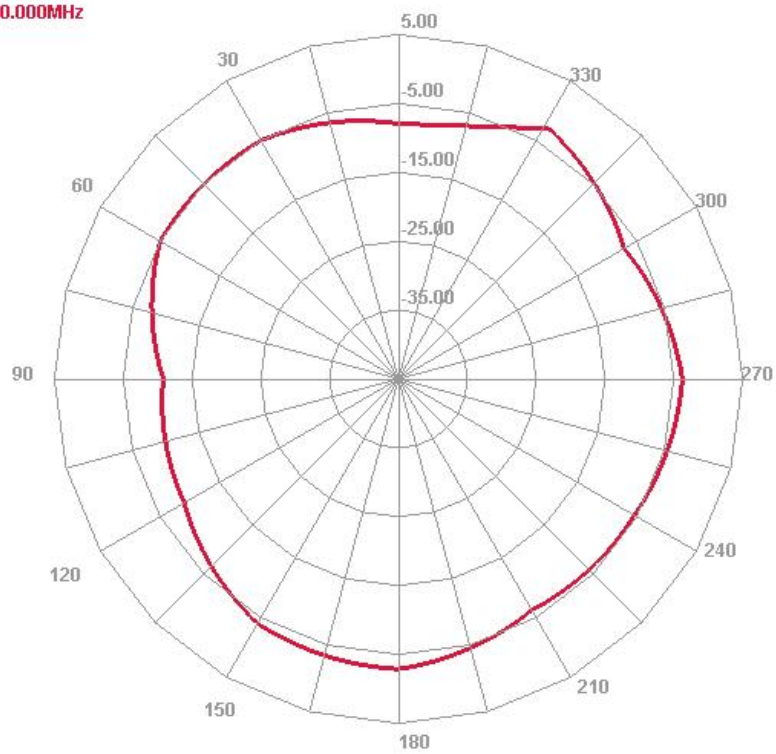




**X-Y Plane**  
**H Theta=90**

**Horizontal**

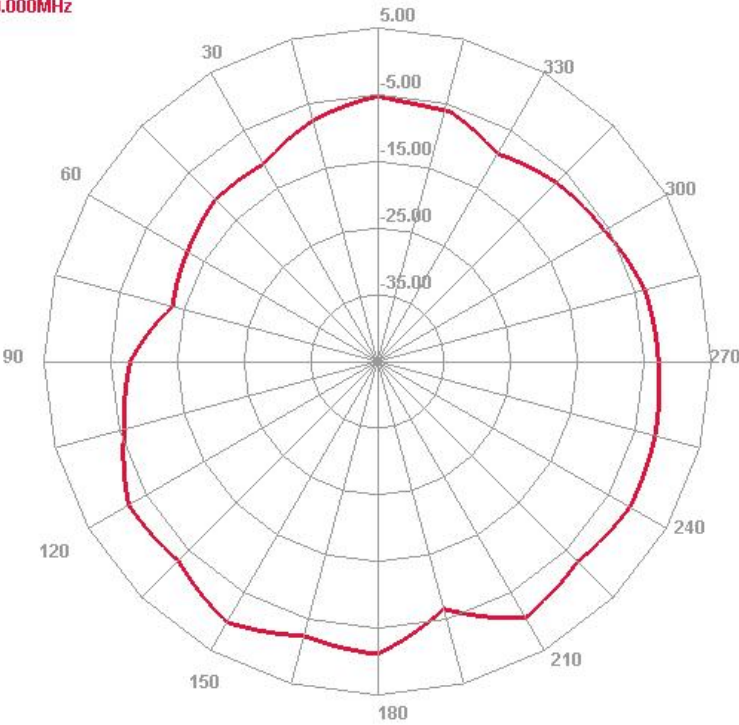
2460.000MHz



**X-Z Plane**  
**V Phi=0**

**E1 Face**

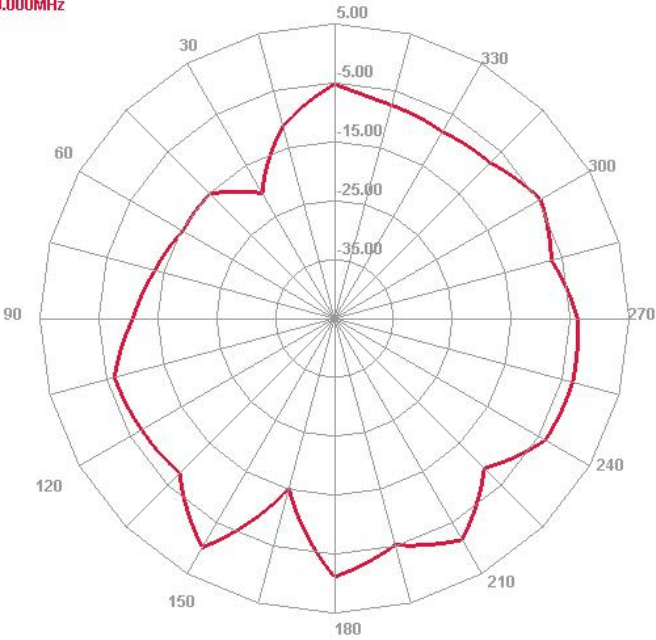
2460.000MHz

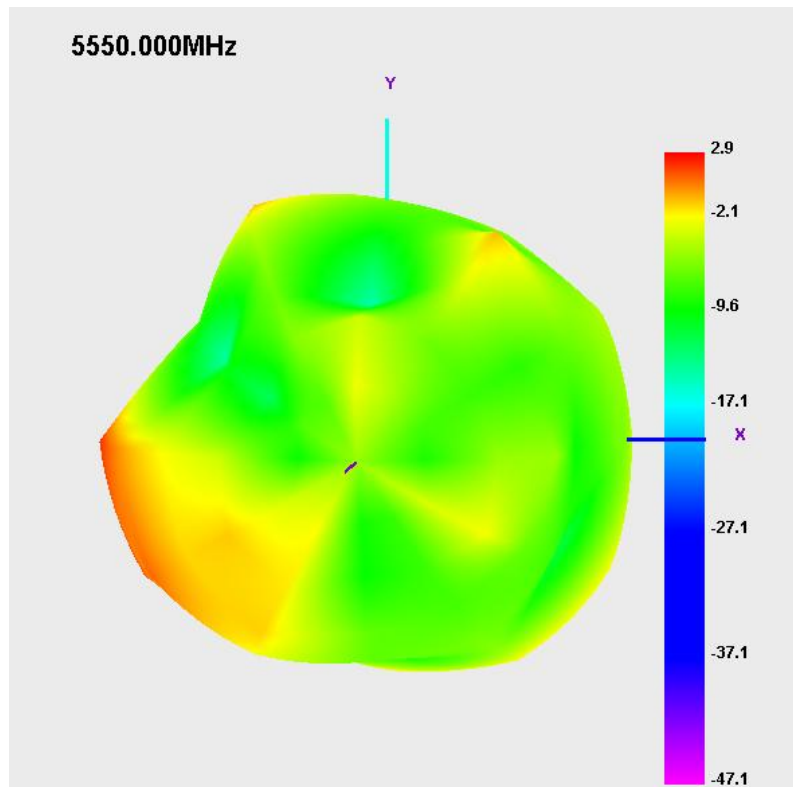


**Y-Z Plane**  
**V Phi=90**

**E2 Face**

2460.000MHz

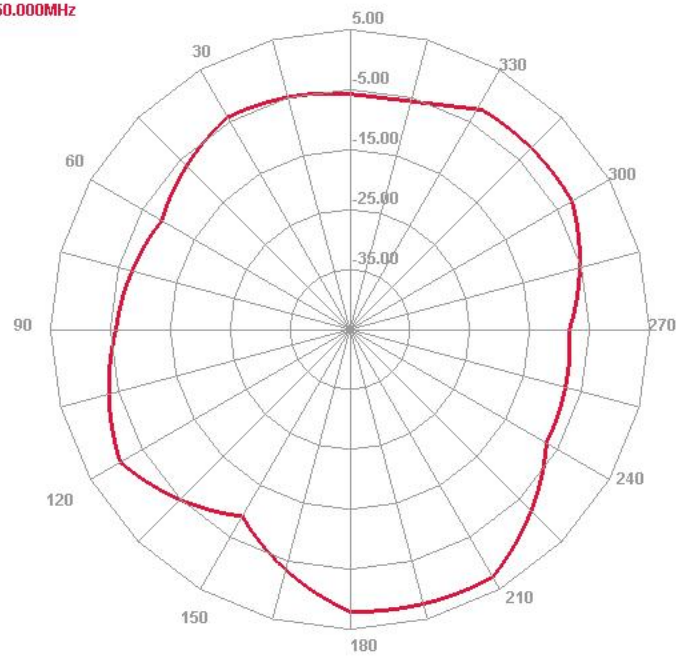




**X-Y Plane  
H Theta=90**

**Horizontal**

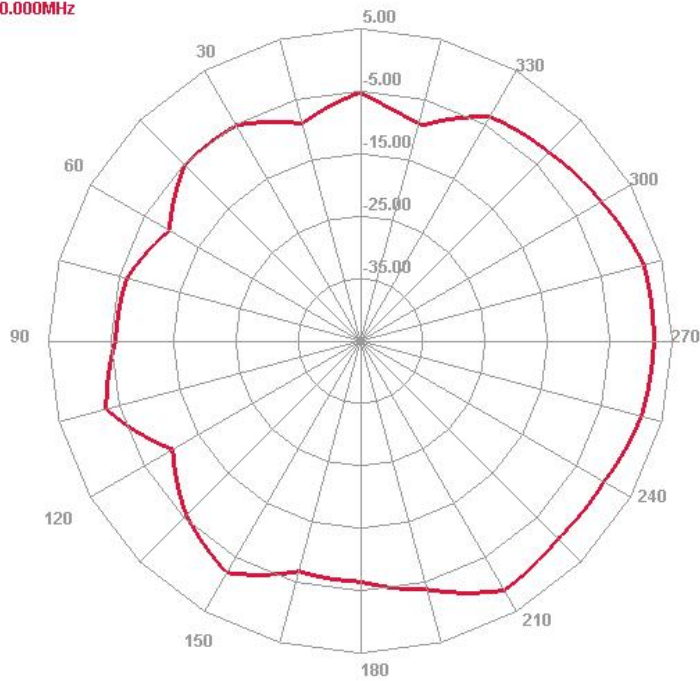
5550.000MHz



**X-Z Plane**  
**V Phi=0**

**E1 Face**

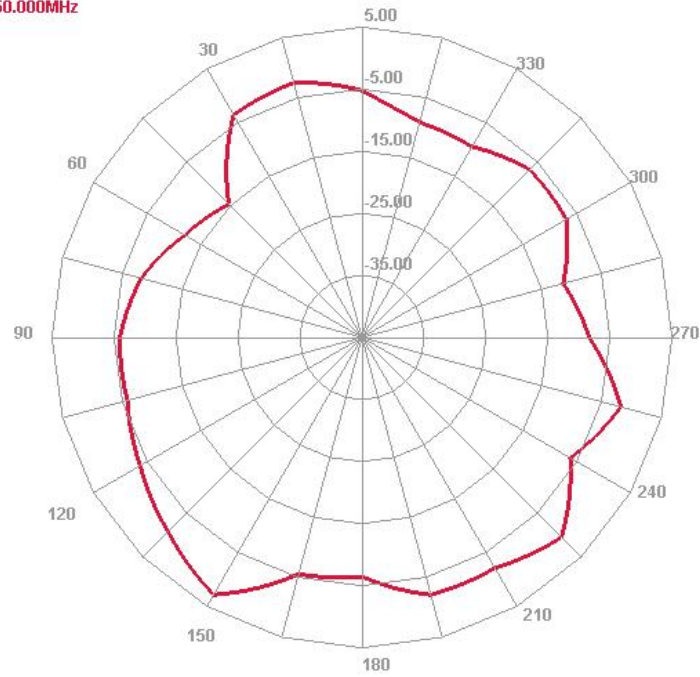
5550.000MHz



**Y-Z Plane**  
**V Phi=90**

**E2 Face**

5550.000MHz



有源数据

OTA (TRP TIS)

| WIFI OTA测试             |               | WIFI OTA test |        |
|------------------------|---------------|---------------|--------|
| 测试频段<br>Test frequency | 信道<br>Channel | TRP           | TIS    |
| WIFI 11b (11M)         | 1             | 13.41         | -84.25 |
|                        | 7             | 13.55         | -84.17 |
|                        | 13            | 13.25         | -84.33 |
| WIFI 11a (54M)         | 36            | 11.16         | -72.26 |
|                        | 149           | 11.39         | -72.17 |
|                        | 165           | 11.25         | -72.22 |