

# Antenna Reports

**Issue date : May 13, 2024**

**Test Engineer : Guanwei**

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## General information

|                      |                                                                                                                            |
|----------------------|----------------------------------------------------------------------------------------------------------------------------|
| Antenna number       | Three in one: T703-14RB-040                                                                                                |
| Model name           | WM10128S                                                                                                                   |
| Antenna Type         | PIFA                                                                                                                       |
| Manufacturer         | SHENZHEN Xingyuanchuang TECHNOLOGY CO.,LTD                                                                                 |
| Manufacturer Address | 1506, Tangwei Stock Business Building, Tangwei Community, Fuhai Street, Bao'an District, Shenzhen City, Guangdong Province |
| Dimension            |                                                                                                                            |

## Test environment

|                                         |                                                                                                                            |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Test lab                                | SHENZHEN Xingyuanchuang TECHNOLOGY CO.,LTD                                                                                 |
| Lab address                             | 1506, Tangwei Stock Business Building, Tangwei Community, Fuhai Street, Bao'an District, Shenzhen City, Guangdong Province |
| Test environment (chamber)              | OTA Laboratory                                                                                                             |
| Test the equipment and calibration date | 8753E Network Analyzer \ June 15, 2023                                                                                     |
| Test the software                       | OuTuo                                                                                                                      |

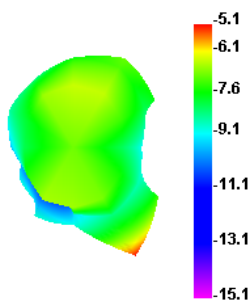
# Test result

## ANT 1

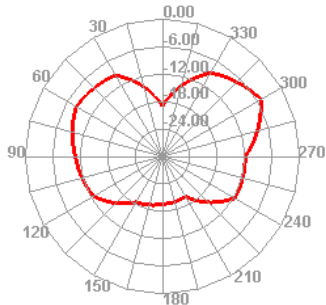
| Frequency Bands | Frequency [MHz] | Peak Gain (dBi) | Polarization |
|-----------------|-----------------|-----------------|--------------|
| GPS             | 1575            | -5.11           |              |
| WIFI2.4G/BT     | 2400-2500       | -2.34           |              |
| WIFI5G          | 5150-5850       | -0.88           |              |
|                 |                 |                 |              |
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**Note: Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document.**

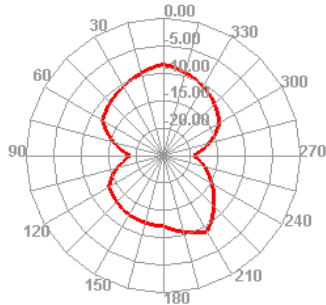
1575.000MHz



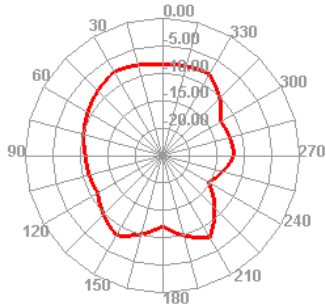
1575.000MHz H



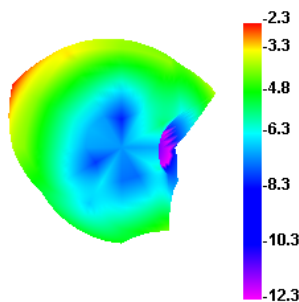
1575.000MHz E1



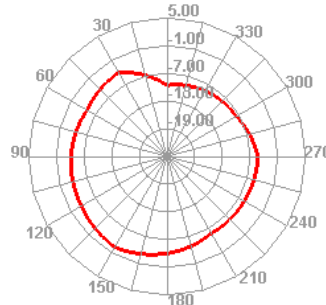
1575.000MHz E2



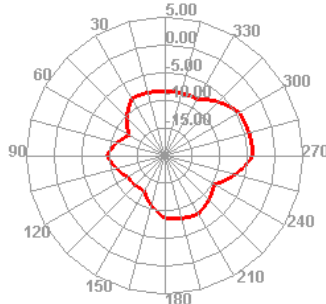
2450.000MHz



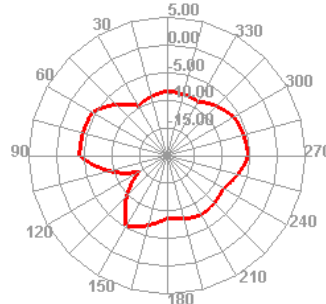
2450.000MHz H



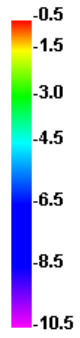
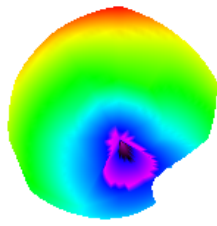
2450.000MHz E1



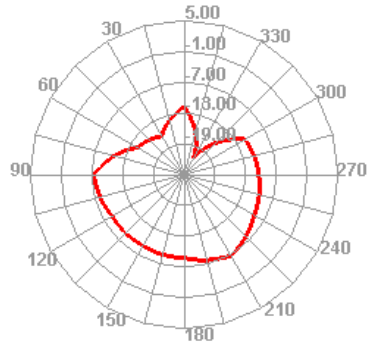
2450.000MHz E2



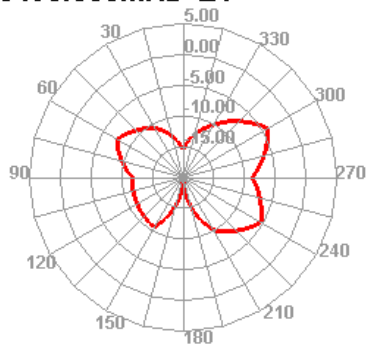
5490.000MHz



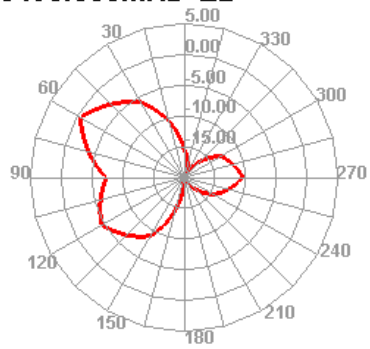
5490.000MHz H



5490.000MHz E1



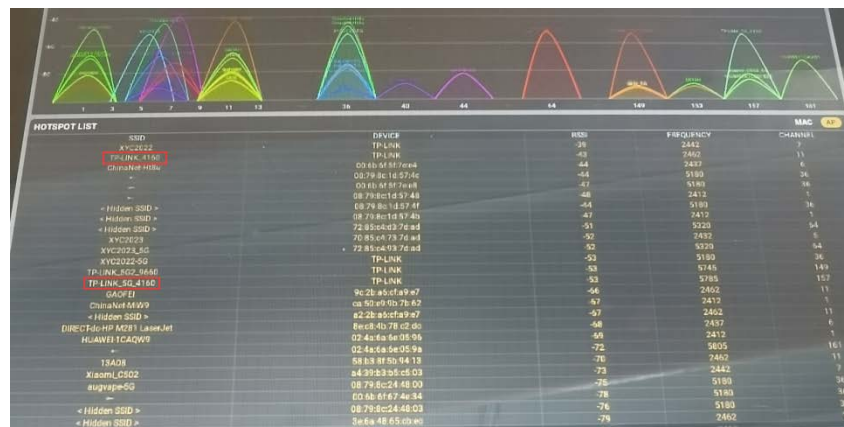
5490.000MHz E2



## GPS star search test



## Wifi Antenna test



## WIFI RVR test

### CH1 TX

| 角度\衰减  | 0dB  | 10dB | 20dB | 30dB | 40dB |
|--------|------|------|------|------|------|
| 0.0°   | 68.9 | 69.3 | 69.7 | 69.2 | 55.9 |
| 90.0°  | 68.8 | 68.9 | 68.7 | 68.8 | 60.4 |
| 180.0° | 68.7 | 68.9 | 68.7 | 68.7 | 68.4 |
| 270.0° | 68.8 | 68.8 | 68.5 | 68.8 | 55.8 |

### CH1 RX

| 角度\衰减  | 0dB  | 10dB | 20dB | 30dB | 40dB |
|--------|------|------|------|------|------|
| 0.0°   | 74.3 | 74.2 | 74.2 | 74.1 | 51.6 |
| 90.0°  | 73.7 | 73.7 | 74.1 | 73.9 | 65.2 |
| 180.0° | 74.3 | 74   | 74.2 | 73.9 | 74   |
| 270.0° | 74.2 | 74.4 | 74   | 74.3 | 60.2 |

### CH161 TX

| 角度\衰减  | 0dB | 10dB | 20dB | 30dB | 40dB |
|--------|-----|------|------|------|------|
| 0.0°   | 367 | 368  | 336  | 244  | 155  |
| 90.0°  | 368 | 368  | 355  | 270  | 165  |
| 180.0° | 245 | 233  | 234  | 216  | 88.7 |
| 270.0° | 368 | 368  | 351  | 303  | 164  |

### CH161 RX

| 角度\衰减  | 0dB | 10dB | 20dB | 30dB | 40dB |
|--------|-----|------|------|------|------|
| 0.0°   | 372 | 373  | 373  | 373  | 292  |
| 90.0°  | 373 | 373  | 373  | 372  | 276  |
| 180.0° | 374 | 373  | 373  | 372  | 238  |
| 270.0° | 373 | 373  | 373  | 373  | 365  |