

## Antenna Passive Test Report

|                                                                                     |           |
|-------------------------------------------------------------------------------------|-----------|
| Product Name                                                                        | A27 V1.0  |
| product stage                                                                       | Prototype |
| Product Photo                                                                       |           |
|  |           |

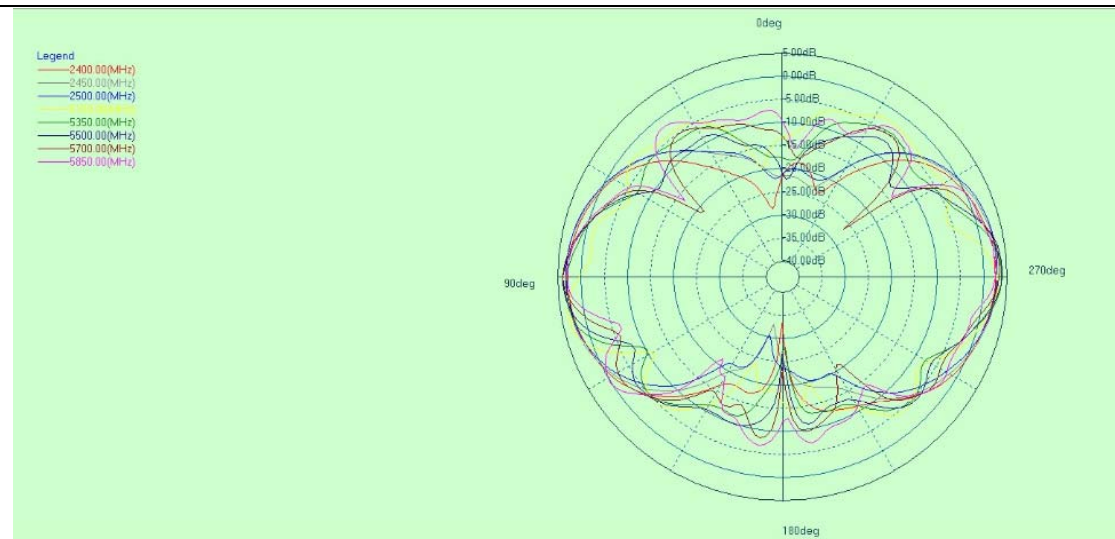
## Test information

|                     |                                                                                                        |                            |                                                |                                     |
|---------------------|--------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|-------------------------------------|
| product             | A27V1.0                                                                                                |                            | product No.                                    |                                     |
| test category       | Antenna passive test                                                                                   | test the venue             | S Parameters (laboratory) radiation parameters |                                     |
| test date           | 2021.6.21                                                                                              | Testers                    | Xiao Pengcheng                                 |                                     |
| environ ment        | temperature: 24℃-28℃                                                                                   | Relative humidity: 56%-58% |                                                | Atmospheric pressure: 100kPa-101kPa |
| test project        | Room temperature electrical properties: √ Return loss √ Gain √ pattern √ port isolation                |                            |                                                |                                     |
| Test foundati on    | Test report, see test attached                                                                         |                            |                                                |                                     |
| test in conclusi on | The antenna radiation parameters and S-parameters meet the requirements, and antennas are well matched |                            |                                                |                                     |

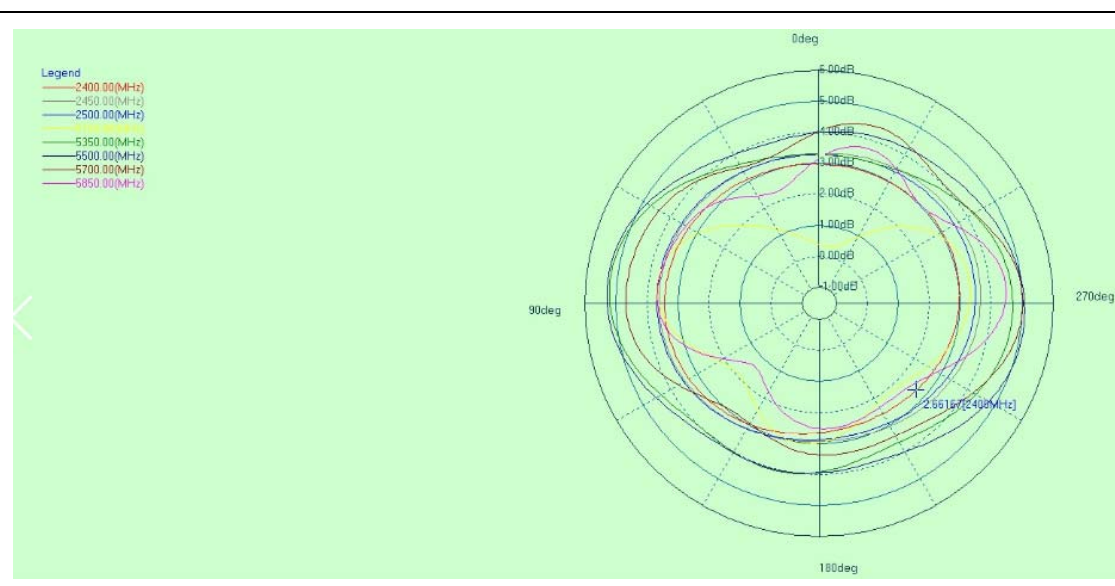
## Room temperature electrical performance test results

| No. | Test items         | unit | performance requirements | test result           |     | Judgment |
|-----|--------------------|------|--------------------------|-----------------------|-----|----------|
|     |                    |      |                          | Sample serial number: |     |          |
| 1   | Frequency Range    | MHz  | 2400-2483/5150-5850      | 2400-2483/5150-5850   |     | OK       |
| 2   | Gain               | dBi  | 4/5                      | 2410                  | 3.5 | OK       |
|     |                    |      |                          | 2450                  | 4.2 | OK       |
|     |                    |      |                          | 2483                  | 4.1 | OK       |
|     |                    |      |                          | 5150                  | 4.0 | OK       |
|     |                    |      |                          | 5500                  | 5.0 | OK       |
|     |                    |      |                          | 5850                  | 4.8 | OK       |
| 3   | isolation          | dB   | $\leq -15$               | 2410                  | -24 | OK       |
|     |                    |      |                          | 2450                  | -21 | OK       |
|     |                    |      |                          | 2483                  | -21 | OK       |
|     |                    |      |                          | 5150                  | -20 | OK       |
|     |                    |      |                          | 5500                  | -25 | OK       |
|     |                    |      |                          | 5850                  | -23 | OK       |
| 4   | return loss        | dB   | $\leq -10$               | 2410                  | -14 | OK       |
|     |                    |      |                          | 2450                  | -14 | OK       |
|     |                    |      |                          | 2483                  | -17 | OK       |
|     |                    |      |                          | 5150                  | -25 | OK       |
|     |                    |      |                          | 5500                  | -17 | OK       |
|     |                    |      |                          | 5850                  | -15 | OK       |
| 5   | Antenna efficiency | /    | $\geq 60\%$              | 2410                  | 86% | OK       |
|     |                    |      |                          | 2450                  | 92% | OK       |
|     |                    |      |                          | 2483                  | 95% | OK       |
|     |                    |      |                          | 5150                  | 71% | OK       |
|     |                    |      |                          | 5500                  | 81% | OK       |
|     |                    |      |                          | 5850                  | 79% | OK       |

### vertical radiation pattern



### Horizontal plane radiation pattern



S11

ANT1

frequency

2412MHz-2483 MHz/5150MHz-5850MHz

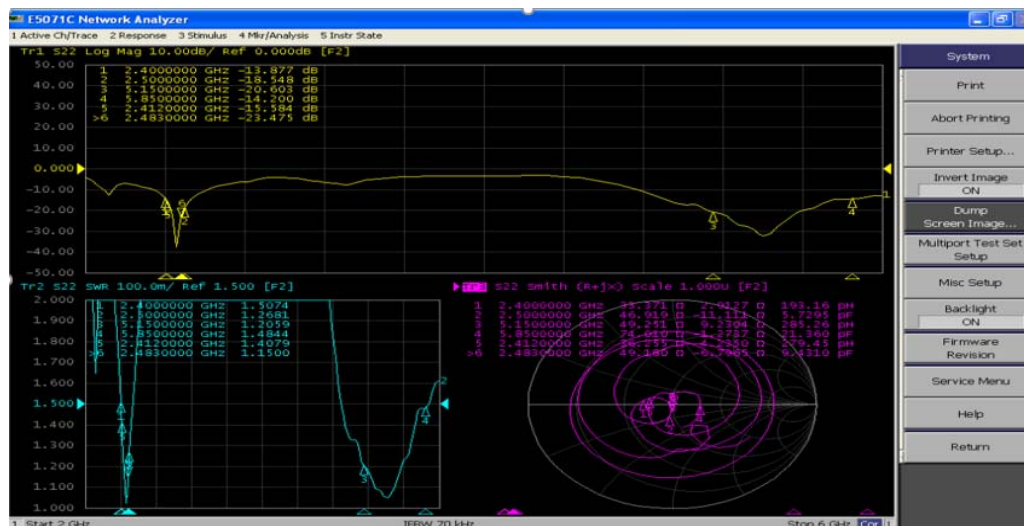


S22

ANT2

frequency

2412MHz-2483 MHz/5150MHz-5850MHz



S21(isolation)

ANT1/2

frequency

2412MHz-2483 MHz/5150MHz-5850MHz

