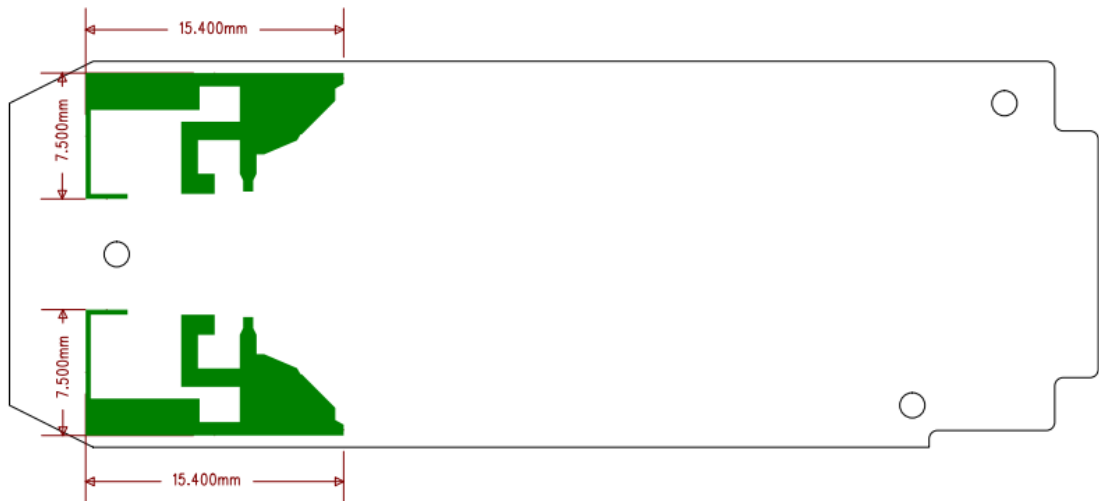


## Measurement of Antenna for U18 v3.0 Project

Manufacture: SHENZHEN TENDA TECHNOLOGY CO., LTD.

6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District,  
Shenzhen, China. 518052

### 1. Antenna Appearance:

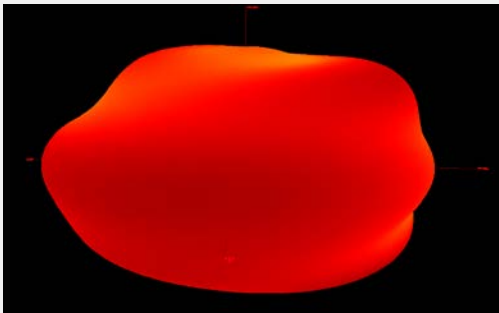


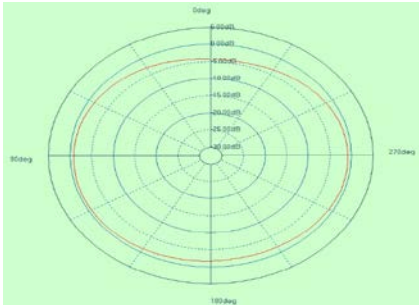
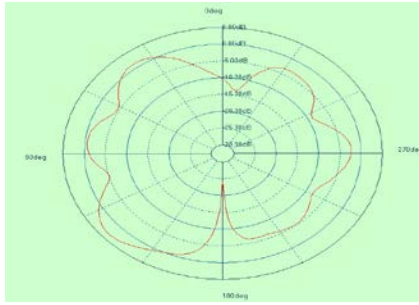
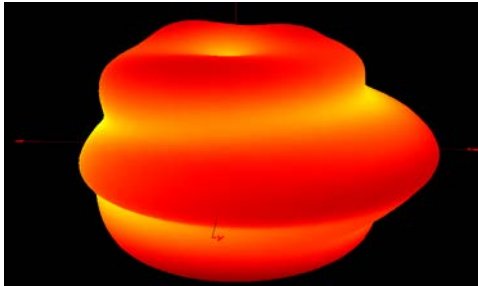
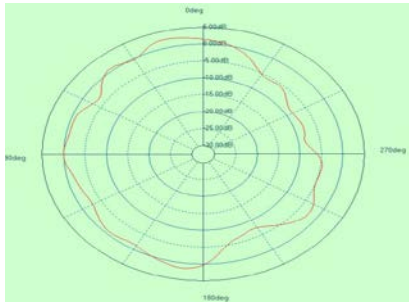
### 2. Electrical performance test results at normal temperature

## a) Antenna1

| No | Test Item       | Unit | Demand Performance  | Test Result         |      | Judgement |
|----|-----------------|------|---------------------|---------------------|------|-----------|
| 1  | Frequency Range | MHz  | 2400-2500/5150-5850 | 2400-2500/5150-5850 |      | OK        |
| 2  | Gain            | dBi  | /                   | 2410                | 1.35 | OK        |
|    |                 |      |                     | 2450                | 3.22 | OK        |
|    |                 |      |                     | 2500                | 3.33 | OK        |
|    |                 |      |                     | 5150                | 3.34 | OK        |
|    |                 |      |                     | 5500                | 2.73 | OK        |
|    |                 |      |                     | 5850                | 3.01 | OK        |
| 3  | Return loss     | dB   | /                   | 2412                | -18  | OK        |
|    |                 |      |                     | 2450                | -30  | OK        |
|    |                 |      |                     | 2483                | -17  | OK        |
|    |                 |      |                     | 5150                | -23  | OK        |
|    |                 |      |                     | 5500                | -29  | OK        |
|    |                 |      |                     | 5850                | -14  | OK        |

## Directional diagram

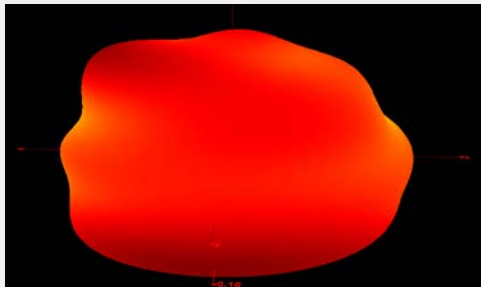
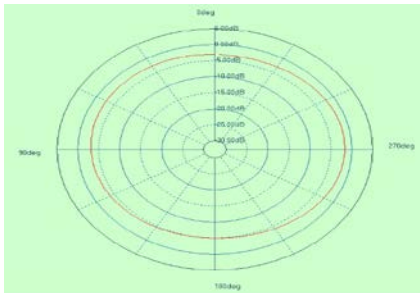
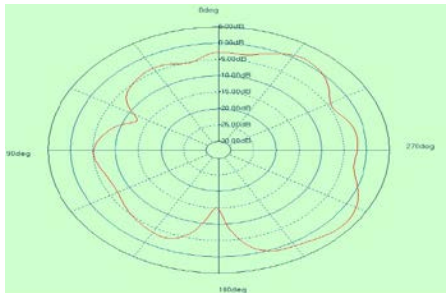
| EUT                          |                                                                                      |            |
|------------------------------|--------------------------------------------------------------------------------------|------------|
| Remark                       |                                                                                      |            |
| Frequency                    | E Total. dB(dBi)                                                                     | Efficiency |
| 2400MHz                      | 0.88                                                                                 | 57%        |
| 2410MHz                      | 1.35                                                                                 | 58%        |
| 2420MHz                      | 1.93                                                                                 | 59%        |
| 2430MHz                      | 2.53                                                                                 | 62%        |
| 2440MHz                      | 2.89                                                                                 | 64%        |
| 2450MHz                      | 3.22                                                                                 | 65%        |
| 2460MHz                      | 3.21                                                                                 | 65%        |
| 2470MHz                      | 3.22                                                                                 | 66%        |
| 2480MHz                      | 3.43                                                                                 | 68%        |
| 2490MHz                      | 3.54                                                                                 | 67%        |
| 2500MHz                      | 3.33                                                                                 | 67%        |
| 5150MHz                      | 3.34                                                                                 | 70%        |
| 5200MHz                      | 3.34                                                                                 | 78%        |
| 5250MHz                      | 3.37                                                                                 | 77%        |
| 5300MHz                      | 3.27                                                                                 | 76%        |
| 5350MHz                      | 3.34                                                                                 | 75%        |
| 5400MHz                      | 3.22                                                                                 | 75%        |
| 5450MHz                      | 2.85                                                                                 | 73%        |
| 5500MHz                      | 2.73                                                                                 | 73%        |
| 5550MHz                      | 3.40                                                                                 | 75%        |
| 5600MHz                      | 3.01                                                                                 | 75%        |
| 5650MHz                      | 2.93                                                                                 | 76%        |
| 5700MHz                      | 3.03                                                                                 | 77%        |
| 5750MHz                      | 2.84                                                                                 | 74%        |
| 5800MHz                      | 2.46                                                                                 | 71%        |
| 5850MHz                      | 3.01                                                                                 | 72%        |
| 2.4GHz 3D Radiation patterns |  |            |
|                              | H PLANE                                                                              | V PLANE    |

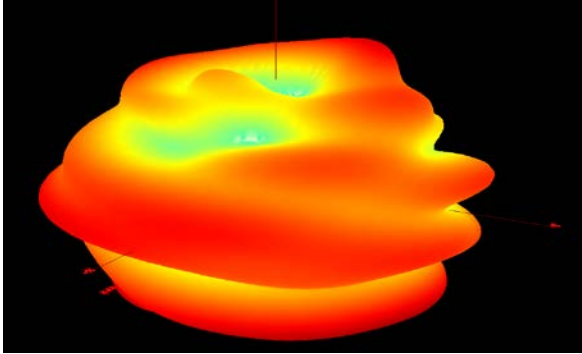
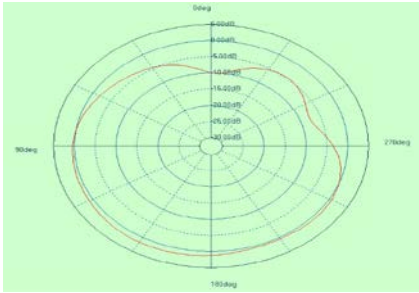
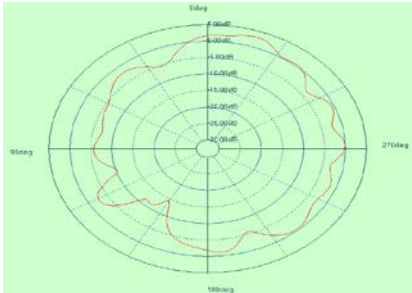
|                                        |                                                                                    |                                                                                     |
|----------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 2.4GHz 2D Radiation patterns (2450MHz) |   |   |
| 5GHz 3D Radiation patterns             |  |                                                                                     |
|                                        | <b>H PLANE</b>                                                                     | <b>V PLANE</b>                                                                      |
| 5GHz 2D Radiation patterns(5250MHz)    |  |  |

## b) Antenna2

| No | Test Item       | Unit | Demand Performance  | Test Result         |      | Judgement |
|----|-----------------|------|---------------------|---------------------|------|-----------|
| 1  | Frequency Range | MHz  | 2400-2500/5150-5850 | 2400-2500/5150-5850 |      | OK        |
| 2  | Gain            | dBi  | /                   | 2410                | 1.26 | OK        |
|    |                 |      |                     | 2450                | 2.47 | OK        |
|    |                 |      |                     | 2490                | 3.28 | OK        |
|    |                 |      |                     | 5150                | 3.63 | OK        |
|    |                 |      |                     | 5500                | 2.90 | OK        |
|    |                 |      |                     | 5850                | 2.99 | OK        |
| 3  | Return loss     | dB   | /                   | 2412                | -18  | OK        |
|    |                 |      |                     | 2450                | -13  | OK        |
|    |                 |      |                     | 2483                | -11  | OK        |
|    |                 |      |                     | 5150                | -18  | OK        |
|    |                 |      |                     | 5500                | -14  | OK        |
|    |                 |      |                     | 5850                | -13  | OK        |

## Directional diagram

| EUT                                    |                                                                                      |                                                                                      |
|----------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Remark                                 |                                                                                      |                                                                                      |
| Frequency                              | E Total. dB(dBi)                                                                     | Efficiency                                                                           |
| 2400MHz                                | 0.76                                                                                 | 56%                                                                                  |
| 2410MHz                                | 1.26                                                                                 | 57%                                                                                  |
| 2420MHz                                | 1.39                                                                                 | 57%                                                                                  |
| 2430MHz                                | 1.59                                                                                 | 58%                                                                                  |
| 2440MHz                                | 2.08                                                                                 | 60%                                                                                  |
| 2450MHz                                | 2.47                                                                                 | 61%                                                                                  |
| 2460MHz                                | 2.31                                                                                 | 60%                                                                                  |
| 2470MHz                                | 2.39                                                                                 | 60%                                                                                  |
| 2480MHz                                | 3.31                                                                                 | 61%                                                                                  |
| 2490MHz                                | 3.28                                                                                 | 61%                                                                                  |
| 2500MHz                                | 3.16                                                                                 | 62%                                                                                  |
| 5150MHz                                | 3.63                                                                                 | 70%                                                                                  |
| 5200MHz                                | 3.21                                                                                 | 78%                                                                                  |
| 5250MHz                                | 3.36                                                                                 | 79%                                                                                  |
| 5300MHz                                | 3.63                                                                                 | 78%                                                                                  |
| 5350MHz                                | 2.90                                                                                 | 78%                                                                                  |
| 5400MHz                                | 2.66                                                                                 | 78%                                                                                  |
| 5450MHz                                | 2.55                                                                                 | 75%                                                                                  |
| 5500MHz                                | 2.90                                                                                 | 75%                                                                                  |
| 5550MHz                                | 2.90                                                                                 | 75%                                                                                  |
| 5600MHz                                | 2.84                                                                                 | 75%                                                                                  |
| 5650MHz                                | 2.86                                                                                 | 74%                                                                                  |
| 5700MHz                                | 2.90                                                                                 | 74%                                                                                  |
| 5750MHz                                | 2.52                                                                                 | 72%                                                                                  |
| 5800MHz                                | 2.99                                                                                 | 68%                                                                                  |
| 5850MHz                                | 2.99                                                                                 | 70%                                                                                  |
| 2.4GHz 3D Radiation patterns           |  |                                                                                      |
|                                        | H PLANE                                                                              | V PLANE                                                                              |
| 2.4GHz 2D Radiation patterns (2450MHz) |   |  |

|                                             |                                                                                    |                                                                                    |
|---------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <p>5GHz 3D Radiation patte</p>              |  |                                                                                    |
|                                             | <p><b>H PLANE</b></p>                                                              | <p><b>V PLANE</b></p>                                                              |
| <p>5GHz 2D Radiation patterns (5250MHz)</p> |   |  |