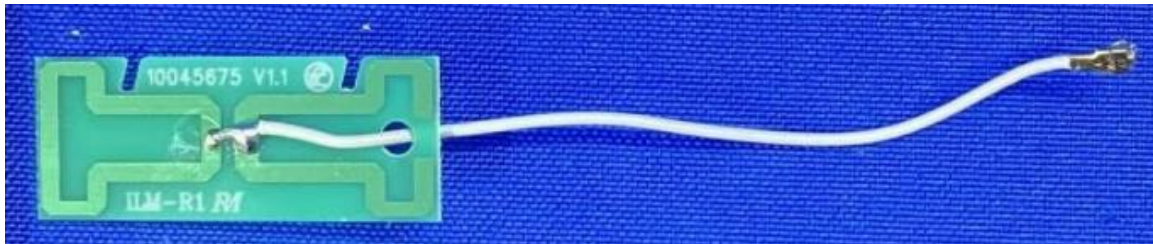


## Measurement of Antenna for RX12L Pro Project

Manufacture: SHENZHEN TENDA TECHNOLOGY CO., LTD.

Model: Mesh3EP Antenna

### 1. Antenna Appearance:



2. 4GHz



5GHz

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

**a) 2. 4G Antenna1**

| No | Test Item       | Unit | Demand Performance | Test Result |       | Judgement |
|----|-----------------|------|--------------------|-------------|-------|-----------|
| 1  | Frequency Range | MHz  | 2400-2483          | 2400-2483   |       | OK        |
| 2  | Gain            | dBi  | 3                  | 2400        | 3. 68 | OK        |
|    |                 |      |                    | 2450        | 3. 85 | OK        |
|    |                 |      |                    | 2483        | 4. 22 | OK        |
| 4  | Return loss     | dB   | $\leq -10$         | 2400        | -13   | OK        |
|    |                 |      |                    | 2450        | -12   | OK        |
|    |                 |      |                    | 2483        | -11   | OK        |

**2. 4G Antenna2**

| No | Test Item       | Unit | Demand Performance | Test Result |       | Judgement |
|----|-----------------|------|--------------------|-------------|-------|-----------|
| 1  | Frequency Range | MHz  | 2400-2483          | 2400-2483   |       | OK        |
| 2  | Gain            | dBi  | 3                  | 2400        | 3. 49 | OK        |
|    |                 |      |                    | 2450        | 3. 12 | OK        |
|    |                 |      |                    | 2483        | 3. 83 | OK        |
| 4  | Return loss     | dB   | $\leq -10$         | 2400        | -14   | OK        |
|    |                 |      |                    | 2450        | -14   | OK        |
|    |                 |      |                    | 2483        | -14   | OK        |

**b) 5G Antenna1**

| No | Test Item       | Unit | Demand Performance | Test Result |       | Judgement |
|----|-----------------|------|--------------------|-------------|-------|-----------|
| 1  | Frequency Range | MHz  | 5150-5850          | 5150-5850   |       | OK        |
| 2  | Gain            | dBi  | 3                  | 5150        | 3. 82 | OK        |
|    |                 |      |                    | 5500        | 3. 93 | OK        |
|    |                 |      |                    | 5850        | 3. 80 | OK        |
| 3  | Return loss     | dB   | $\leq -10$         | 5150        | -17   | OK        |
|    |                 |      |                    | 5500        | -14   | OK        |
|    |                 |      |                    | 5850        | -21   | OK        |

**5G Antenna2**

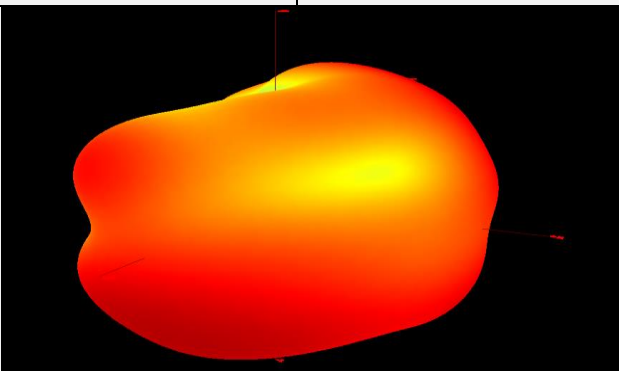
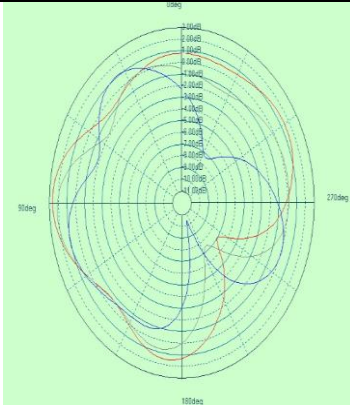
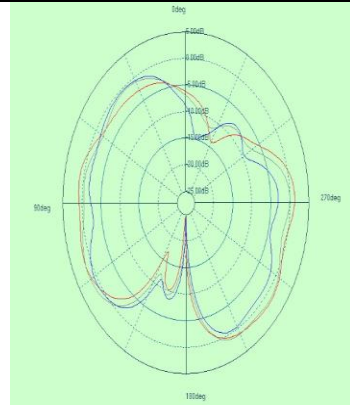
| No | Test Item       | Unit | Demand Performance | Test Result |  | Judgement |
|----|-----------------|------|--------------------|-------------|--|-----------|
| 1  | Frequency Range | MHz  | 5150-5850          | 5150-5850   |  | OK        |

|   |             |     |            |      |      |    |
|---|-------------|-----|------------|------|------|----|
| 2 | Gain        | dBi | 3          | 5150 | 3.22 | OK |
|   |             |     |            | 5500 | 3.56 | OK |
|   |             |     |            | 5850 | 3.82 | OK |
| 3 | Return loss | dB  | $\leq -10$ | 5150 | -17  | OK |
|   |             |     |            | 5500 | -17  | OK |
|   |             |     |            | 5850 | -17  | OK |

### 5G Antenna3

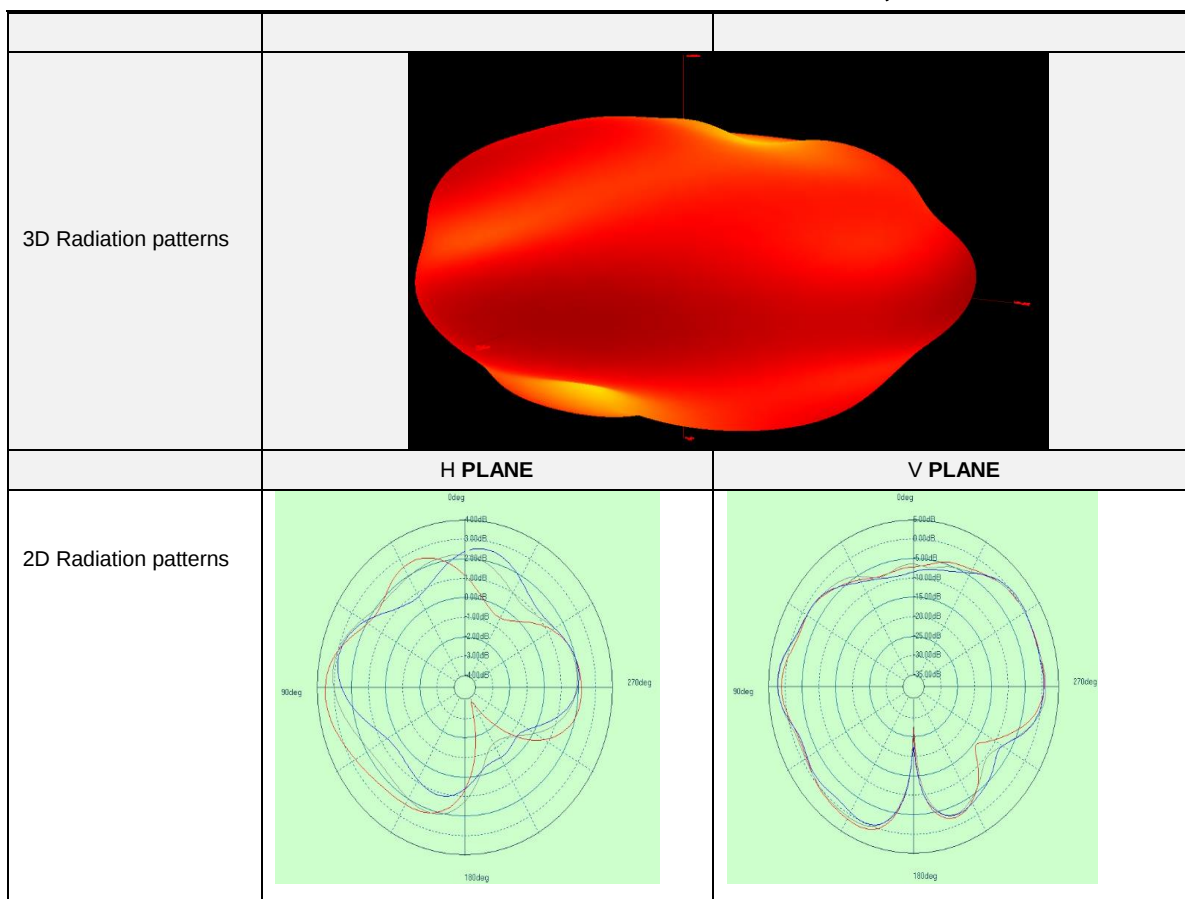
| No | Test Item       | Unit | Demand Performance | Test Result |      | Judgement |
|----|-----------------|------|--------------------|-------------|------|-----------|
| 1  | Frequency Range | MHz  | 5150-5850          | 5150-5850   |      | OK        |
| 2  | Gain            | dBi  | 3                  | 5150        | 3.62 | OK        |
|    |                 |      |                    | 5500        | 3.76 | OK        |
|    |                 |      |                    | 5850        | 3.94 | OK        |
| 3  | Return loss     | dB   | $\leq -10$         | 5150        | -12  | OK        |
|    |                 |      |                    | 5500        | -11  | OK        |
|    |                 |      |                    | 5850        | -14  | OK        |

## Directional diagram for 2.4GHz Antenna1

| EUT                   |                                                                                     |                                                                                      |
|-----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Remark                |                                                                                     |                                                                                      |
| Frequency             | E Total. dB(dB)                                                                     | Efficiency( )                                                                        |
| 2400MHz               | 3.74                                                                                | 78%                                                                                  |
| 2410MHz               | 3.80                                                                                | 77%                                                                                  |
| 2420MHz               | 3.75                                                                                | 76%                                                                                  |
| 2430MHz               | 3.67                                                                                | 77%                                                                                  |
| 2440MHz               | 3.76                                                                                | 79%                                                                                  |
| 2450MHz               | 3.80                                                                                | 78%                                                                                  |
| 2460MHz               | 3.89                                                                                | 77%                                                                                  |
| 2470MHz               | 4.02                                                                                | 77%                                                                                  |
| 2480MHz               | 4.09                                                                                | 78%                                                                                  |
|                       |                                                                                     |                                                                                      |
| 3D Radiation patterns |  |                                                                                      |
|                       | H PLANE                                                                             | V PLANE                                                                              |
| 2D Radiation patterns |  |  |

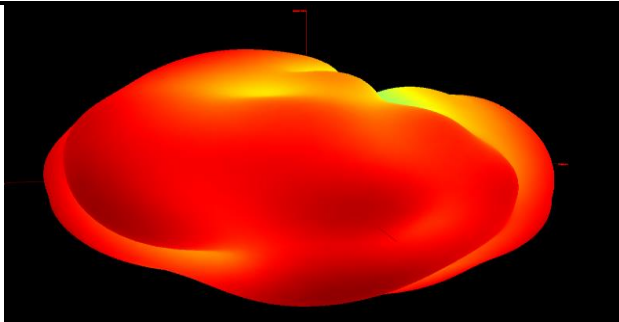
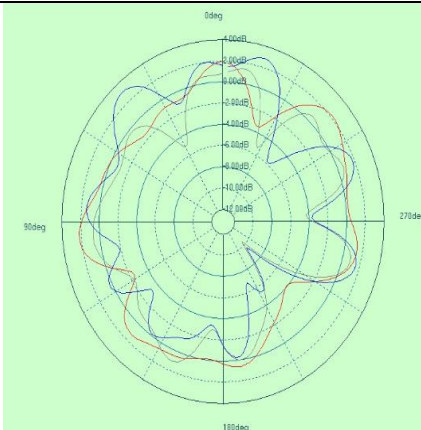
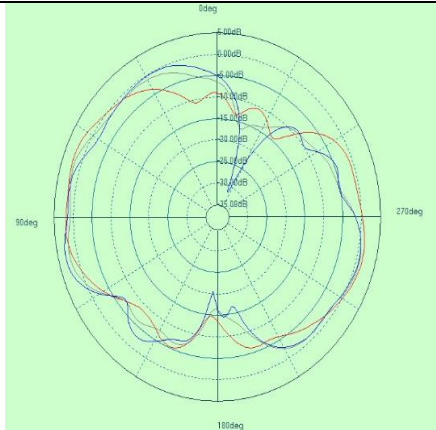
## Directional diagram for 2.4GHz Antenna2

| EUT       |                 |               |
|-----------|-----------------|---------------|
| Remark    |                 |               |
| Frequency | E Total. dB(dB) | Efficiency( ) |
| 2400MHz   | 3.60            | 84%           |
| 2410MHz   | 3.49            | 84%           |
| 2420MHz   | 3.01            | 83%           |
| 2430MHz   | 3.00            | 84%           |
| 2440MHz   | 3.06            | 85%           |
| 2450MHz   | 3.12            | 84%           |
| 2460MHz   | 3.90            | 82%           |
| 2470MHz   | 3.63            | 83%           |
| 2480MHz   | 3.72            | 84%           |



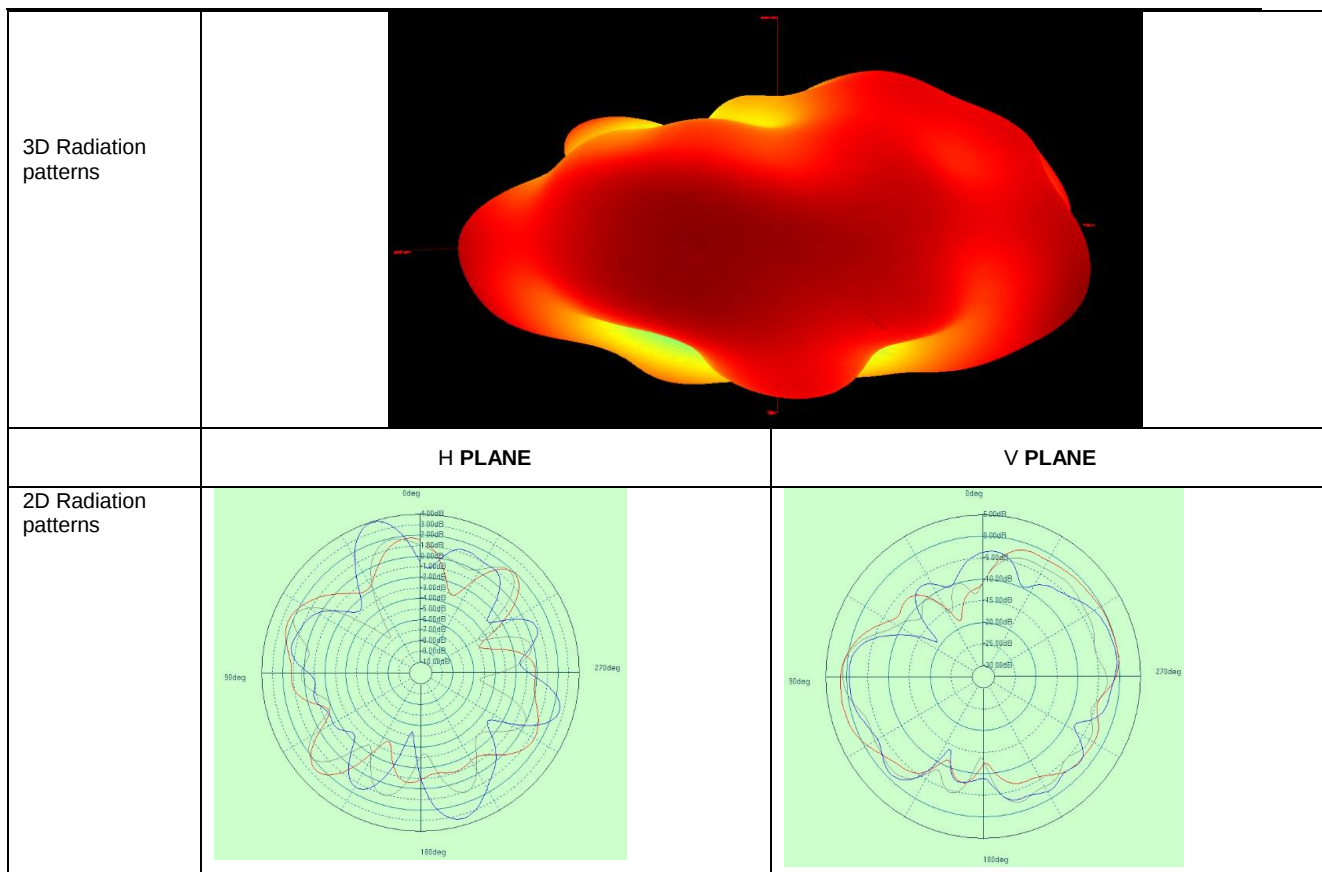
**Directional diagram for 5GHz Antenna1**

| Frequency | E Total. dB(dBi) | Efficiency( ) |
|-----------|------------------|---------------|
| 5150MHz   | 3.82             | 71%           |
| 5200MHz   | 3.86             | 71%           |
| 5250MHz   | 3.57             | 70%           |
| 5300MHz   | 3.96             | 73%           |
| 5350MHz   | 4.15             | 76%           |
| 5400MHz   | 4.17             | 74%           |
| 5450MHz   | 3.93             | 72%           |
| 5500MHz   | 3.58             | 72%           |
| 5550MHz   | 2.97             | 72%           |
| 5600MHz   | 3.31             | 74%           |
| 5650MHz   | 3.31             | 77%           |
| 5700MHz   | 3.22             | 77%           |
| 5750MHz   | 3.30             | 76%           |
| 5800MHz   | 3.30             | 72%           |
|           |                  |               |

|                       |                                                                                    |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 3D Radiation patterns |  |                                                                                    |
|                       | H PLANE                                                                            | V PLANE                                                                            |
| 2D Radiation patterns |   |  |

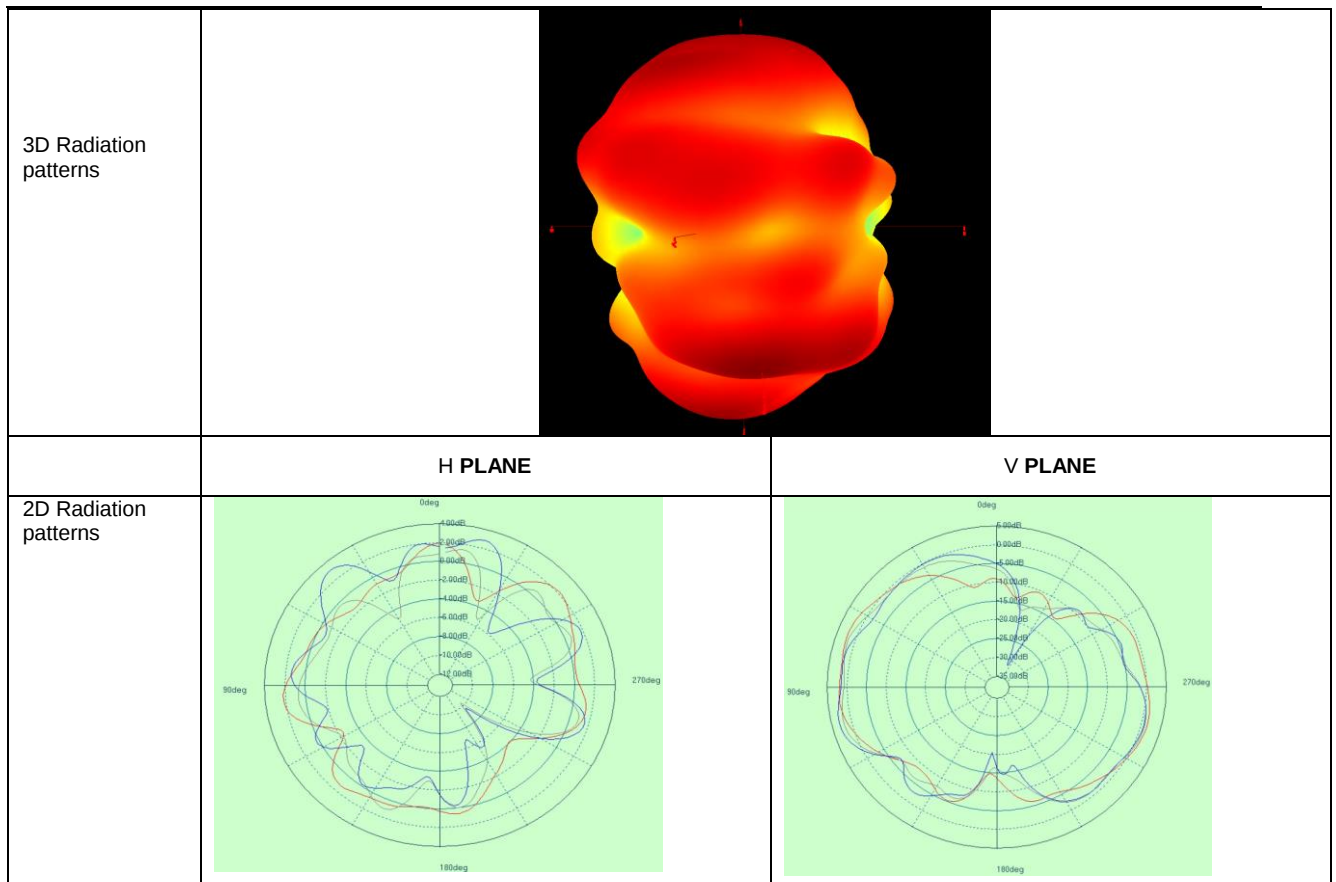
**Directional diagram for 5GHz Antenna2**

| Frequency | E Total. dB(dBi) | Efficiency( ) |
|-----------|------------------|---------------|
| 5150MHz   | 3.12             | 74%           |
| 5200MHz   | 3.34             | 71%           |
| 5250MHz   | 3.49             | 71%           |
| 5300MHz   | 3.53             | 71%           |
| 5350MHz   | 3.67             | 75%           |
| 5400MHz   | 3.96             | 76%           |
| 5450MHz   | 4.08             | 72%           |
| 5500MHz   | 3.46             | 78%           |
| 5550MHz   | 3.30             | 76%           |
| 5600MHz   | 2.87             | 75%           |
| 5650MHz   | 2.79             | 77%           |
| 5700MHz   | 3.11             | 71%           |
| 5750MHz   | 3.52             | 74%           |
| 5800MHz   | 3.73             | 76%           |
|           |                  |               |

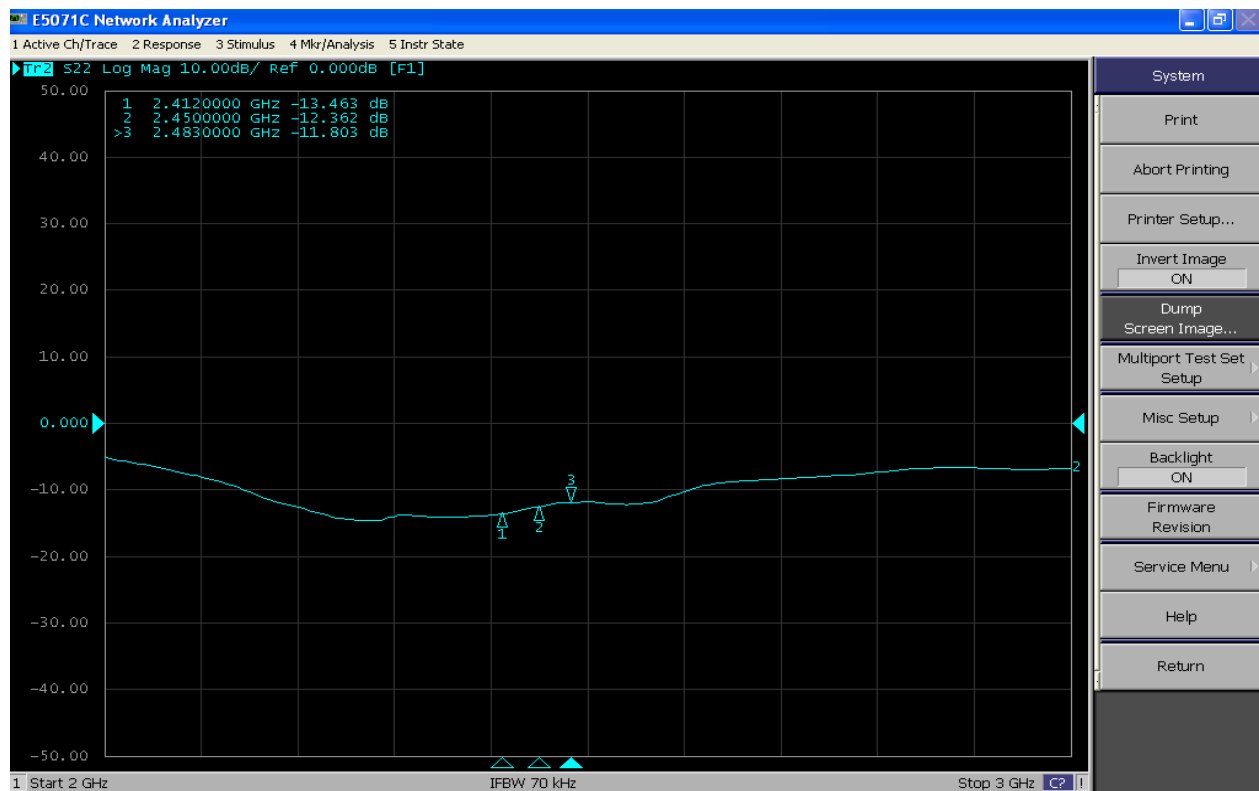


**Directional diagram for 5GHz Antenna3**

| Frequency | E Total. dB(dBi) | Efficiency( ) |
|-----------|------------------|---------------|
| 5150MHz   | 3.62             | 75%           |
| 5200MHz   | 3.64             | 72%           |
| 5250MHz   | 3.39             | 71%           |
| 5300MHz   | 3.21             | 73%           |
| 5350MHz   | 3.77             | 72%           |
| 5400MHz   | 3.53             | 74%           |
| 5450MHz   | 4.28             | 71%           |
| 5500MHz   | 3.76             | 74%           |
| 5550MHz   | 3.35             | 72%           |
| 5600MHz   | 3.57             | 73%           |
| 5650MHz   | 3.39             | 75%           |
| 5700MHz   | 3.18             | 72%           |
| 5750MHz   | 3.42             | 74%           |
| 5800MHz   | 3.24             | 73%           |
|           |                  |               |



## 2. 4G Return loss test



## 5G Return loss test

