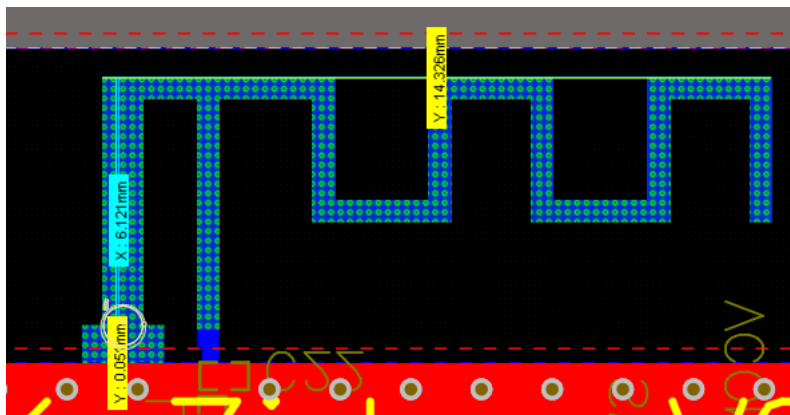


## 1. Antenna Information

|               |  |
|---------------|--|
| Product Model | LEDS-K01, LEDS-K02, RLS-K01D, RLS-K02D   |
| Antenna Model | ZigBee - ANT   |
| Antenna Type  | PIFA   |
| Manufacturer  | Lumi United Technology Co., Ltd<br>Room 801-804, Building 1, Chongwen Park, Nanshan iPark,<br>No. 3370, Liuxian Avenue, Fuguang Community, Taoyuan<br>Residential District, Nanshan District, Shenzhen |

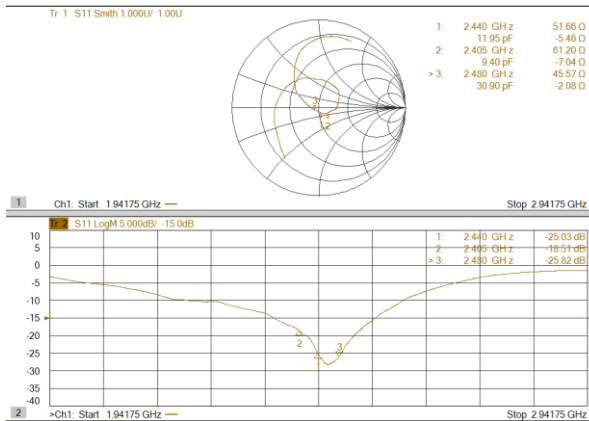
## 2. Antenna Picture



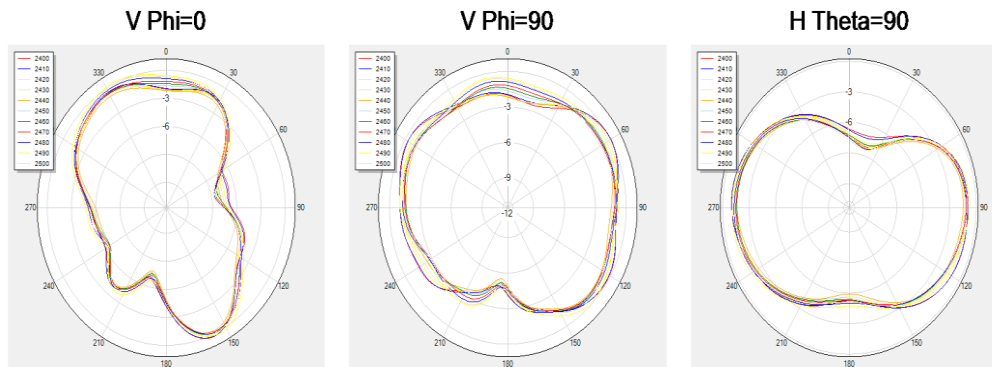
## 3. Electrical Specification

|                 |               |
|-----------------|---------------|
| Frequency Range | 2400~2500 MHz |
| Bandwidth       | 100 MHz       |
| Input Impedence | 50 $\Omega$   |
| S11             | $\leq -10$ dB |
| Peak Gain       | 1.5 dBi       |

## 4. Antenna S11



## 5. Radiation Pattern



## 6. Test Results

| Frequency ID | Frequency (MHz) | Gain (dBi) | Efficiency (dB) | Efficiency (%) |
|--------------|-----------------|------------|-----------------|----------------|
| 1            | 2400            | -0.14      | -2.58           | 55.23          |
| 2            | 2410            | 0.04       | -2.51           | 56.12          |
| 3            | 2420            | 0.24       | -2.51           | 56.11          |
| 4            | 2430            | 1.5        | -2.70           | 53.67          |
| 5            | 2440            | 0.06       | -3.08           | 49.26          |
| 6            | 2450            | -0.01      | -3.21           | 47.73          |
| 7            | 2460            | -0.06      | -3.33           | 46.50          |
| 8            | 2470            | -0.13      | -3.54           | 44.28          |
| 9            | 2480            | 0.09       | -3.52           | 44.49          |
| 10           | 2490            | 0.24       | -3.62           | 43.43          |
| 11           | 2500            | -0.1       | -4.07           | 39.20          |