

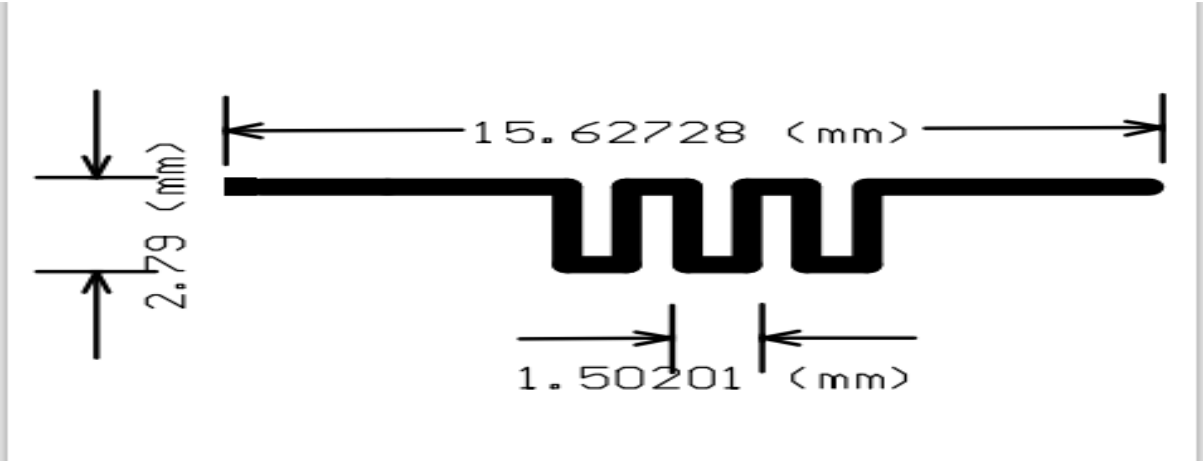
# Antenna Specification

## Specifications

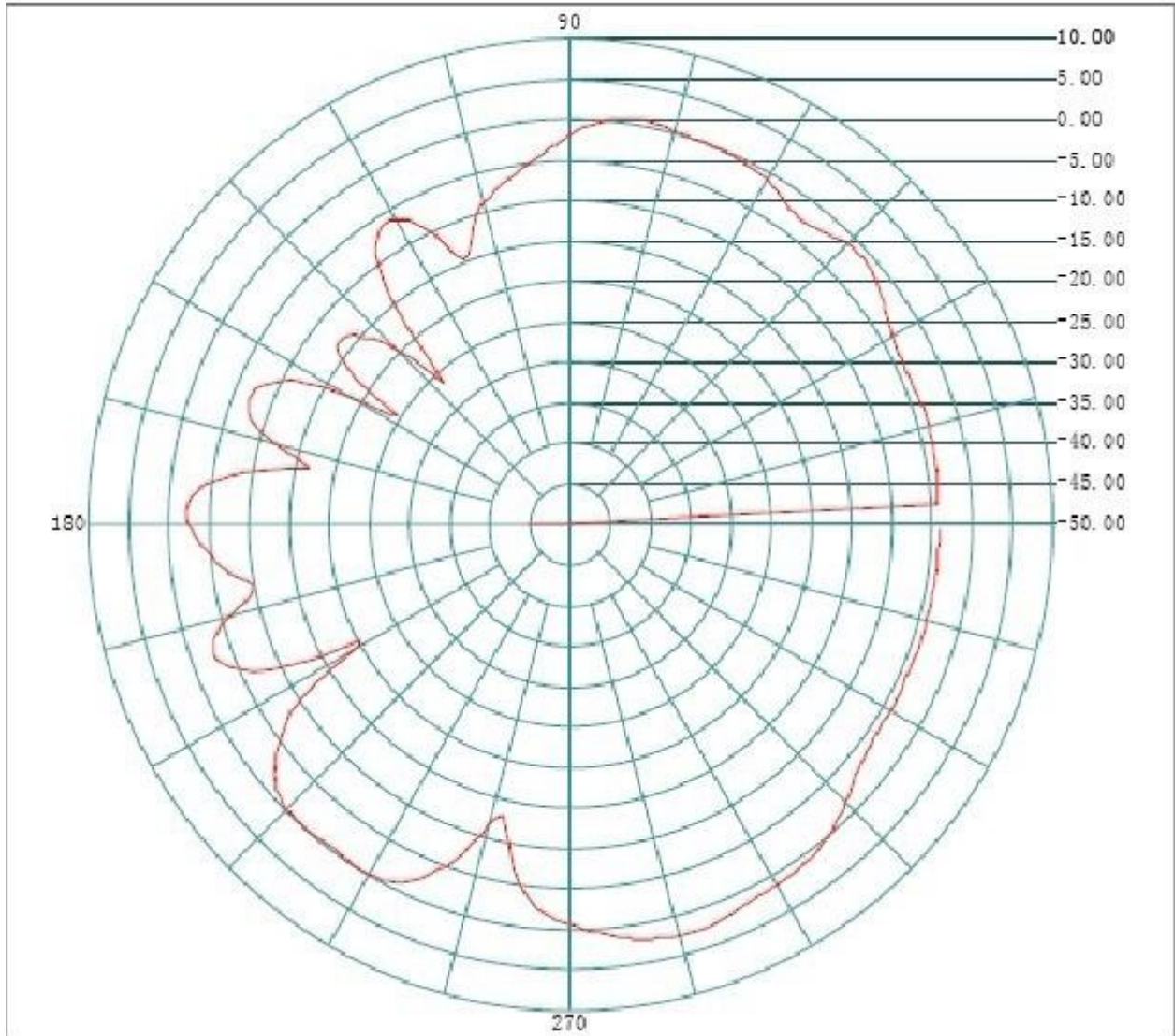
### Summary

| ITEM                 | SPEC.                                            |          |
|----------------------|--------------------------------------------------|----------|
| Model Name           | IBM 2.4 GHz                                      |          |
| Center Frequency     | 2402 MHz                                         | 2.34 dBi |
|                      | 2441 MHz                                         | 2.07 dBi |
|                      | 2480 MHz                                         | 1.45 dBi |
| MAX. GAIN            | 2.34 dBi                                         |          |
| Polarization         | Horizontal                                       |          |
| Azimuth Beam Pattern | Omni-directional                                 |          |
| Impedance            | 50 $\Omega$                                      |          |
| Antenna Length       | 3.1 cm                                           |          |
| Manufacturer         | Shenzhen Hangshi Electronic Technology Co., Ltd. |          |

Antenna Photo & Length ( mm )



|              |                                                                            |
|--------------|----------------------------------------------------------------------------|
| Test Address | 16 Tzu Chiang Road, Hsinchu Industrial District Hsinchu Hsien 303 , Taiwan |
|--------------|----------------------------------------------------------------------------|

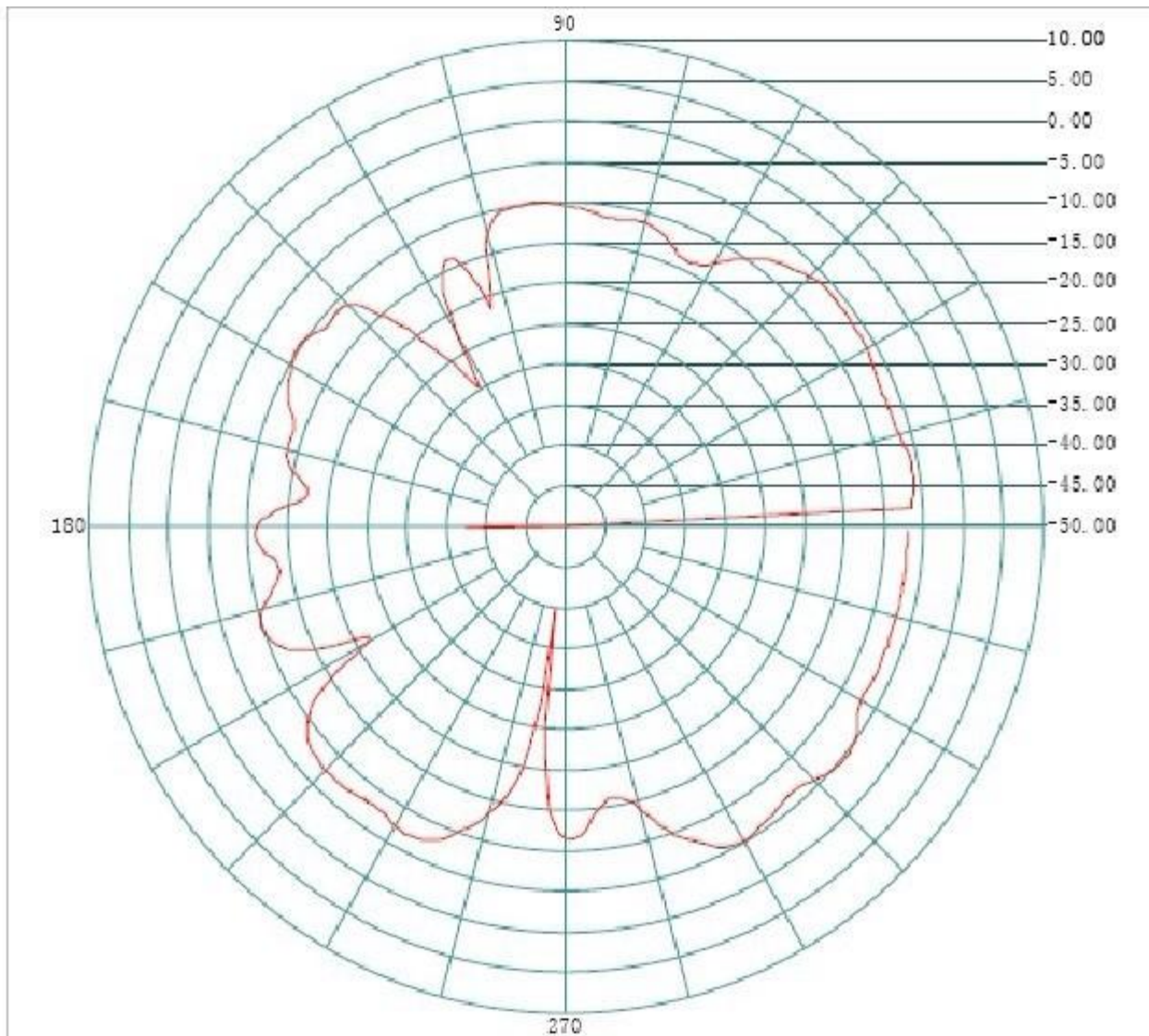


|                 |                                     |
|-----------------|-------------------------------------|
| Test Date       | 2024-8-15                           |
| Test Instrument | vector network analyzer - R&S ZVB20 |

**1. Main antenna : 2402 MHz**

### **1.1 Horizontal**

Frequency(MHZ): **2402** Antenna Polarity: **Horizontal**



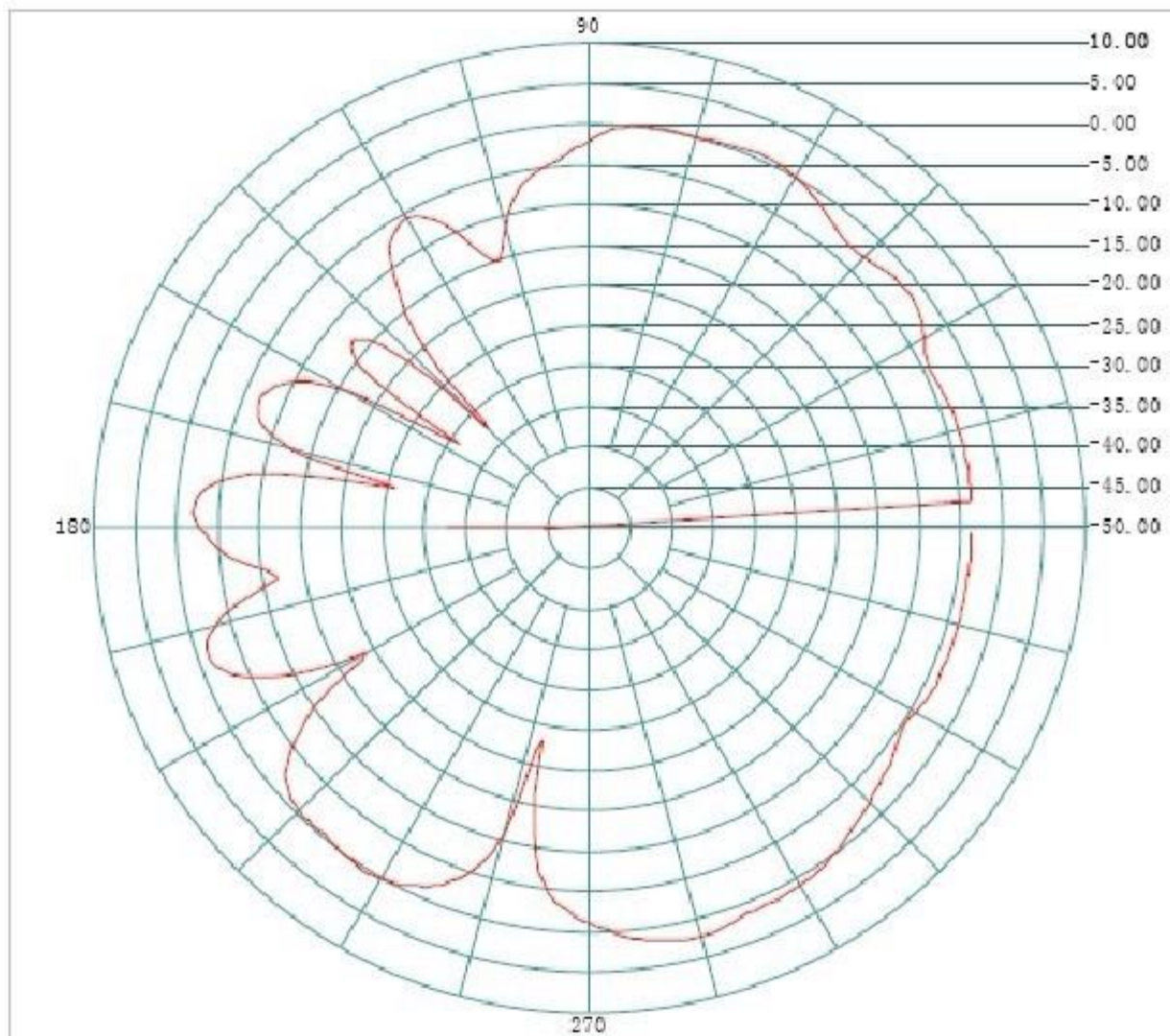
Maximum Value(dBi): **2.34**

Average Gain(dBi) : **-2.48**

Minimum Gain(dBi): **-55.18**

**1.2 Vertical**

Frequency(MHZ): **2402** Antenna Polarity: **Vertical**



Maximum Value(dBi): **-4.51**

Average Gain(dBi) : **-8.98**

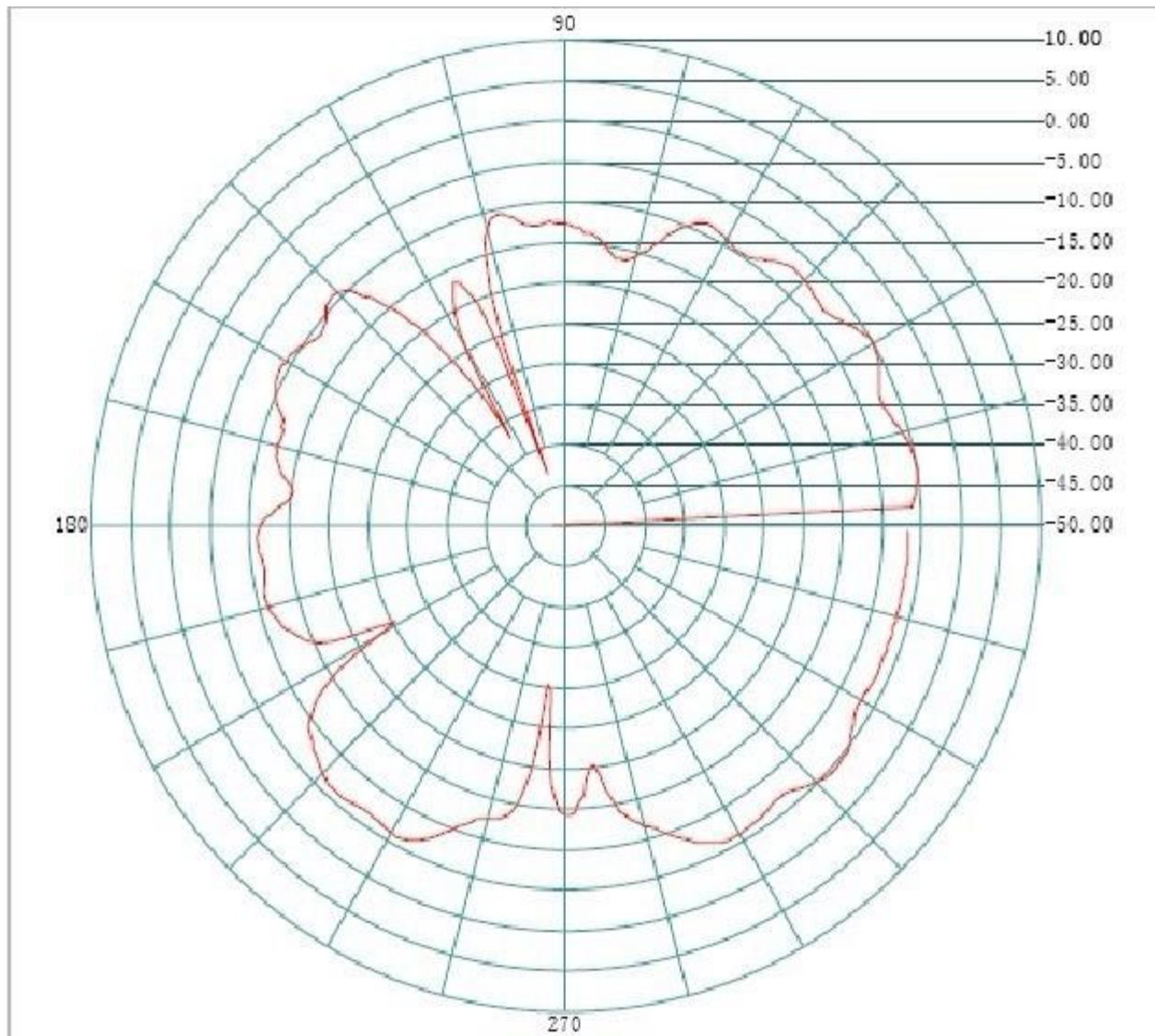
Minimum Gain(dBi): **-62.3**

**2. Main antenna : 2441 MHz**

**2.1 Horizontal**

Frequency(MHZ): **2441** Antenna Polarity: **Horizontal**





Maximum Value(dBi): 2.07

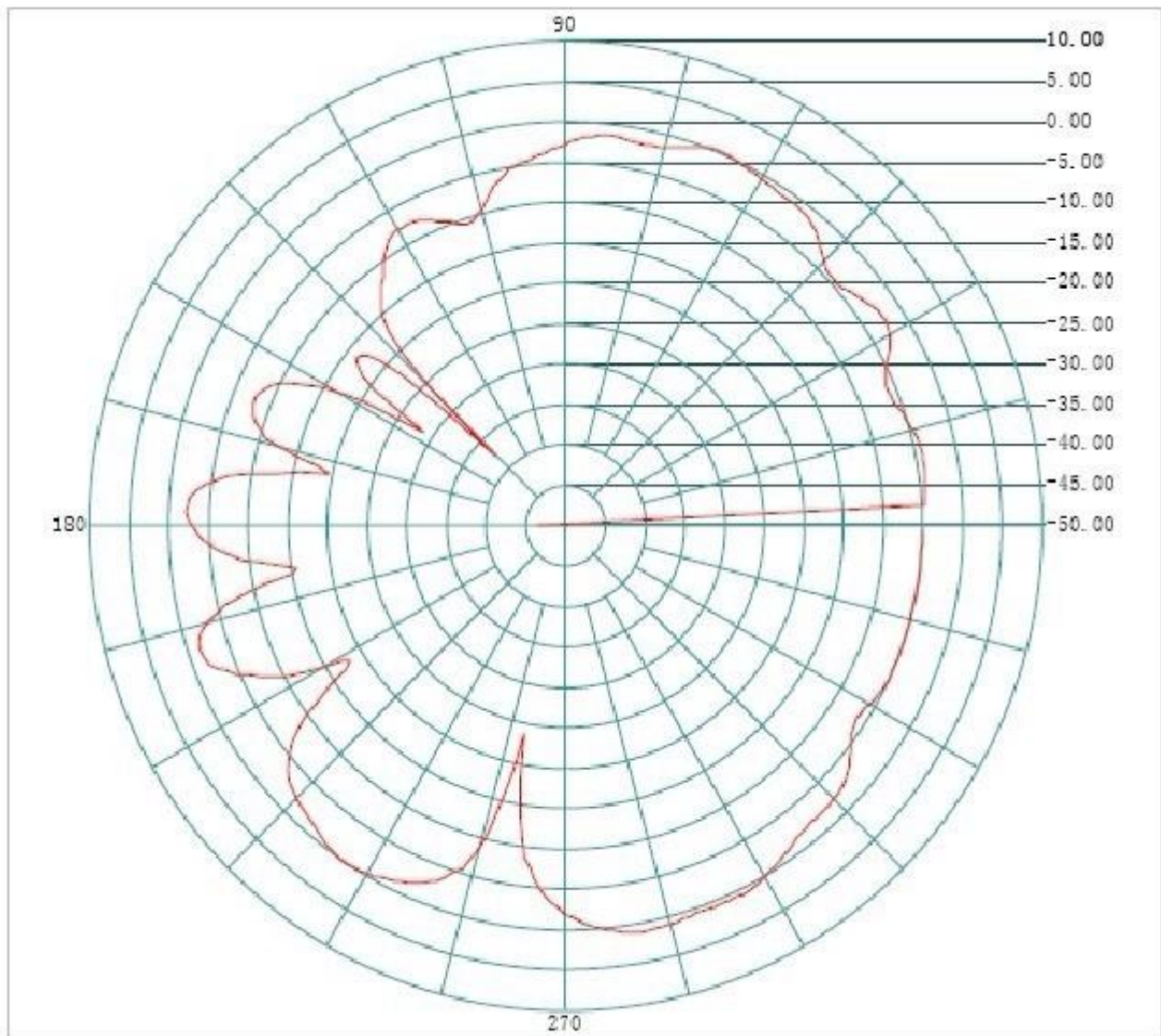
Average Gain(dBi) : -2.54

Minimum Gain(dBi): -66.98

## 2.2 Vertical

Frequency(MHZ): 2441 Antenna Polarity: **Vertical**

Maximum Value(dBi): -4.29



Average Gain(dBi) : **-8.81**

Minimum Gain(dBi): **-51.4**

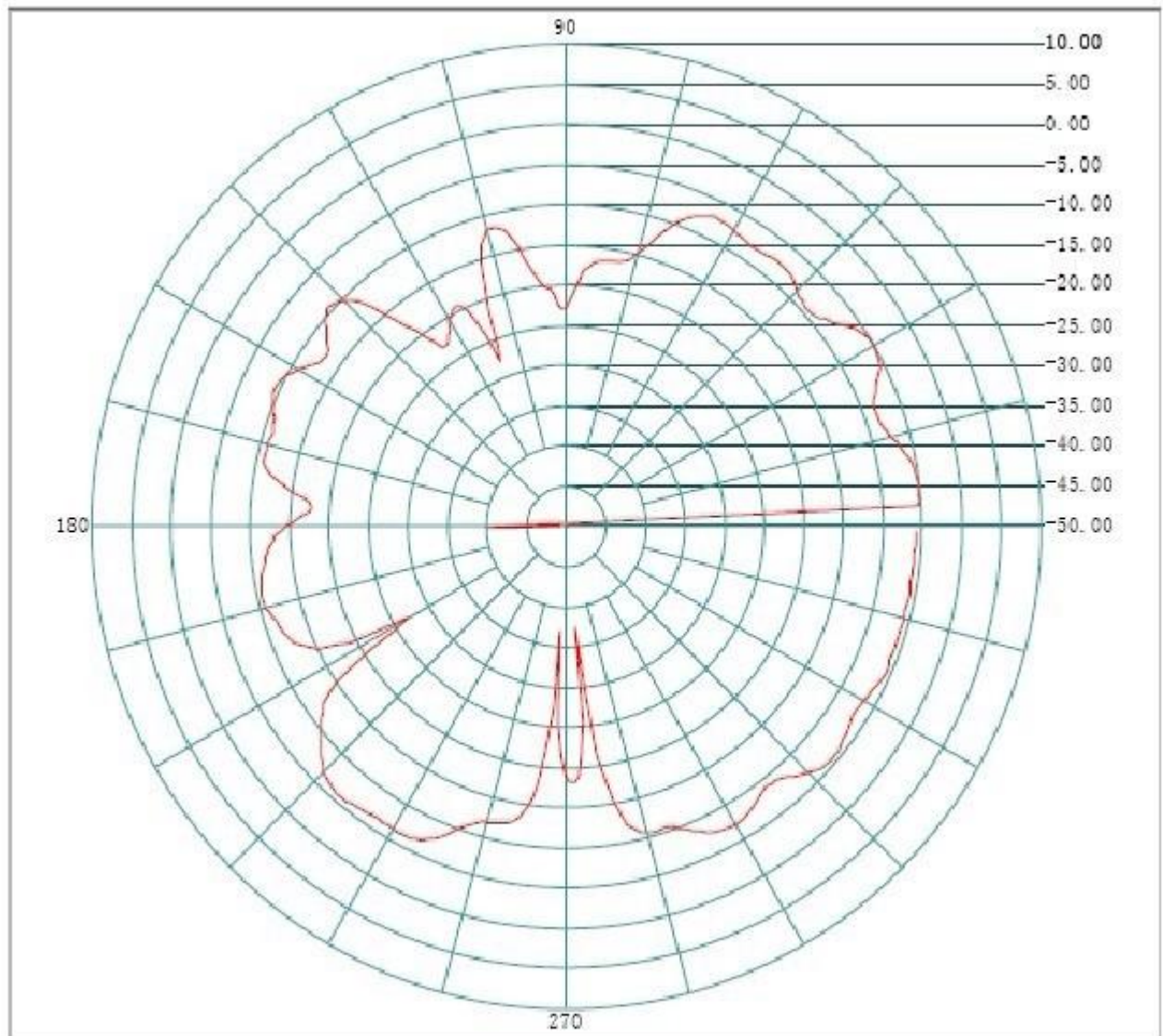
## **2. Main antenna : 2480 MHz**

### **2.1 Horizontal**

Frequency(MHZ): **2480** Antenna Polarity: **Horizontal**

Maximum Value(dBi): **1.45**

Average Gain(dBi) : **-3.34**



Minimum Gain(dBi): **-53.4**

## **2.2 Vertical**

Frequency(MHZ): **2480** Antenna Polarity: **Vertical**

Maximum Value(dBi): **-4.95**

Average Gain(dBi) : **-9.06**

Minimum Gain(dBi): **-60.00**