

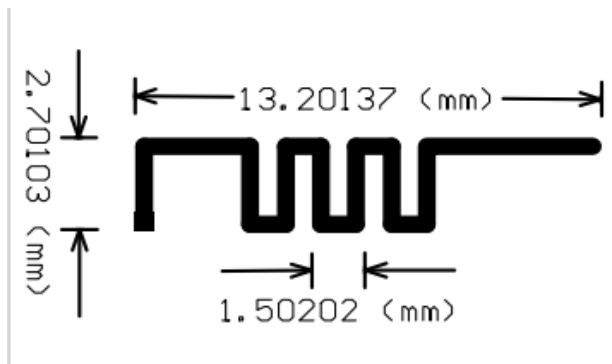
# Antenna Specification

## Specifications

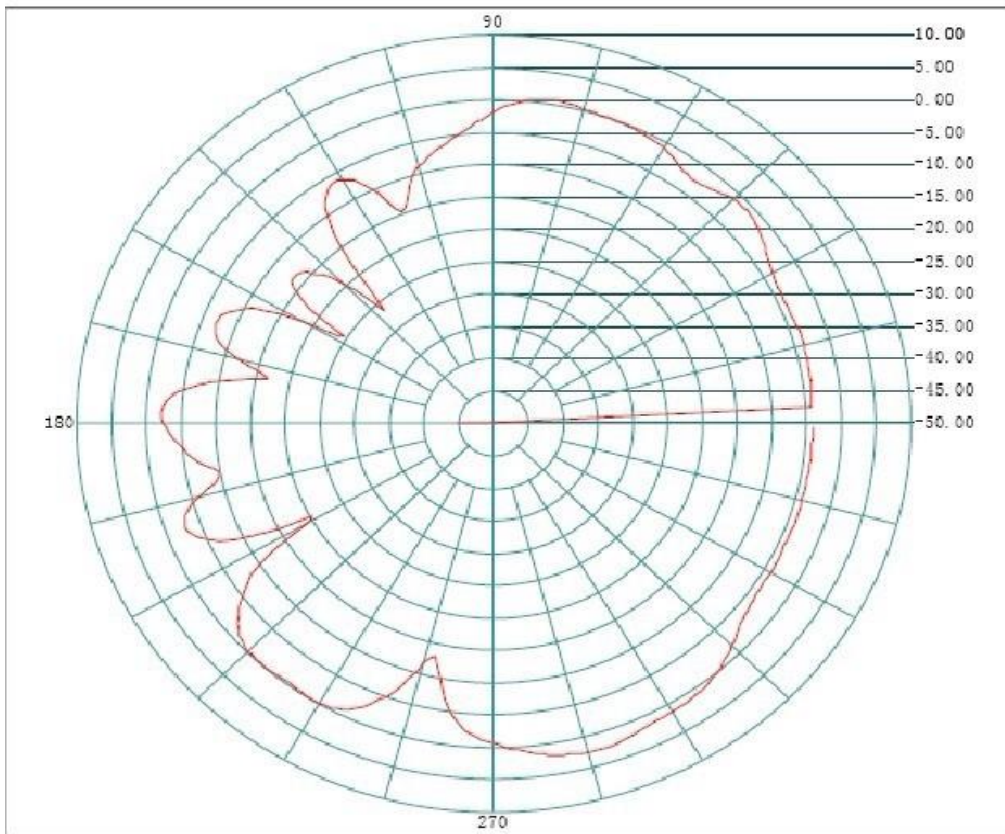
### Summary

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	
Antenna Type	PCB Antenna	

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
Antenna Manufacturer	Shenzhen Hangshi Electronic Technology Co.,Ltd
Manufacturer Address	2nd Floor, Building A1, Zone G, Democratic Western Industrial Zone, Park,Shajing Street, Bao'an District, Shenzhen, 518104, China.



## 1. Main antenna : 2402 MHz

### 1.1 Horizontal

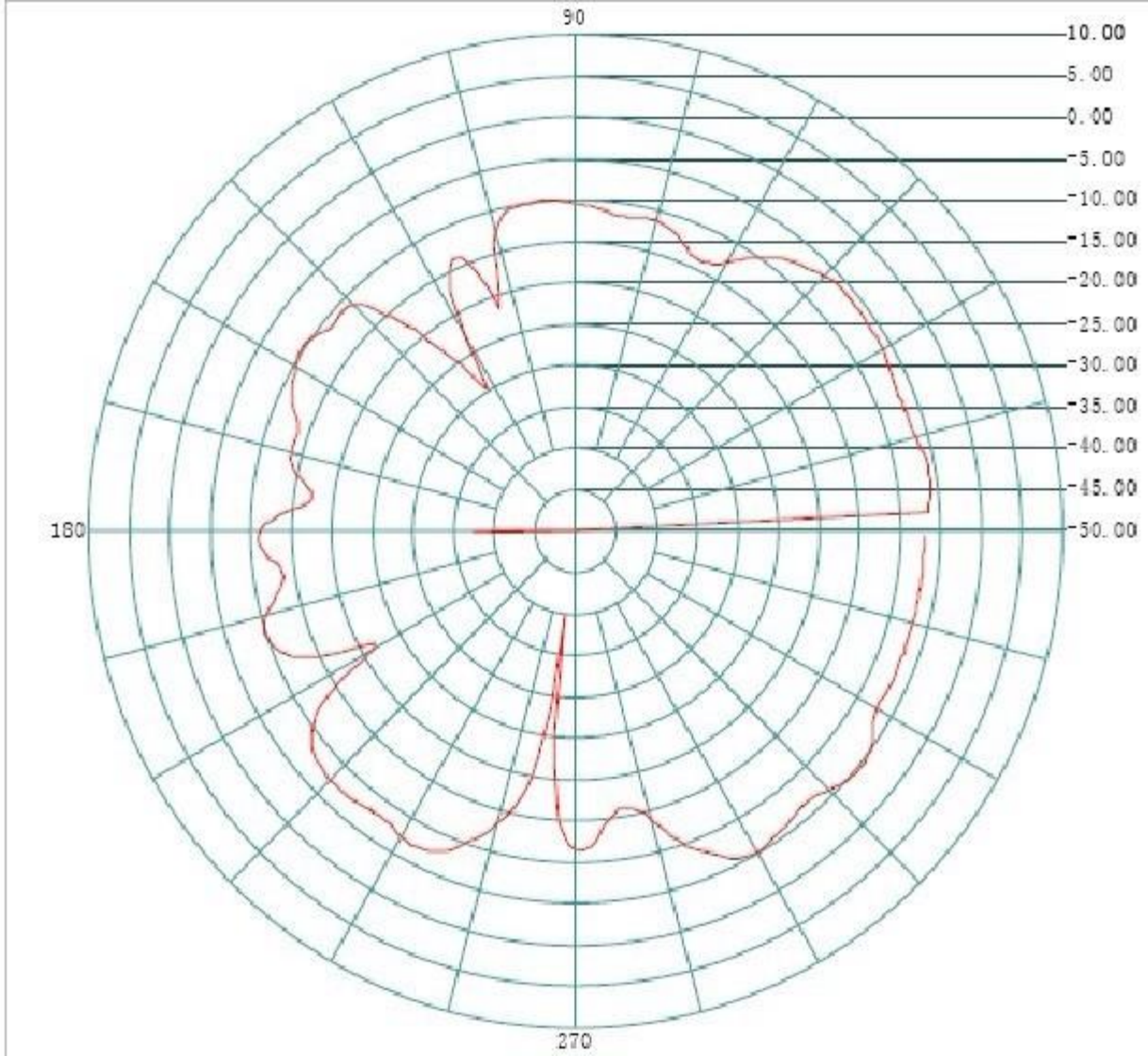
Frequency(MHZ): **2402** Antenna Polarity: **Horizontal**

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**

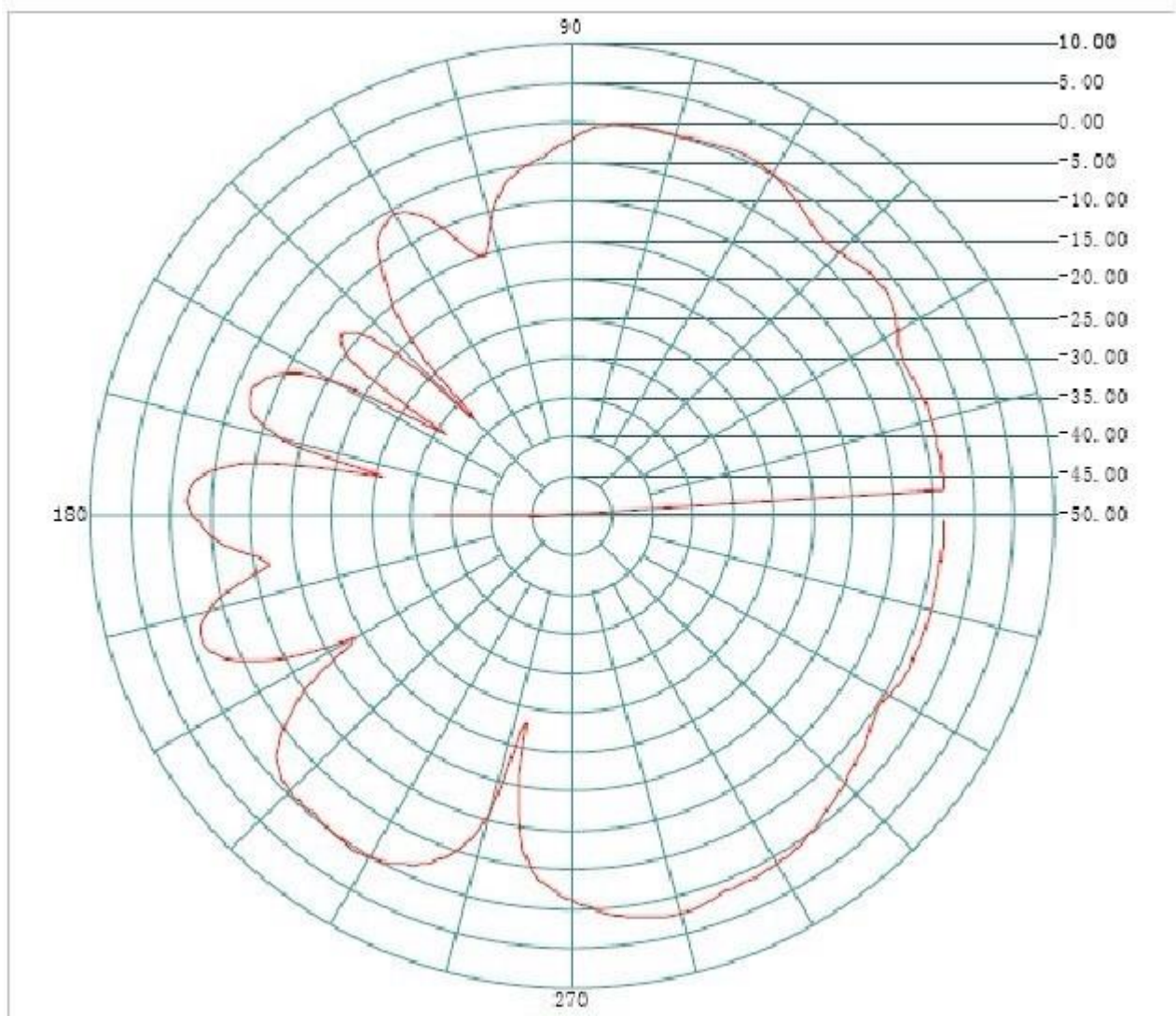
Frequency(MHZ): **2441** Antenna Polarity: **Horizontal**

Maximum Value(dBi): 2.07

Average Gain(dBi) : **-2.54**

Minimum Gain(dBi): **-66.98**

**2.2 Vertical**





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

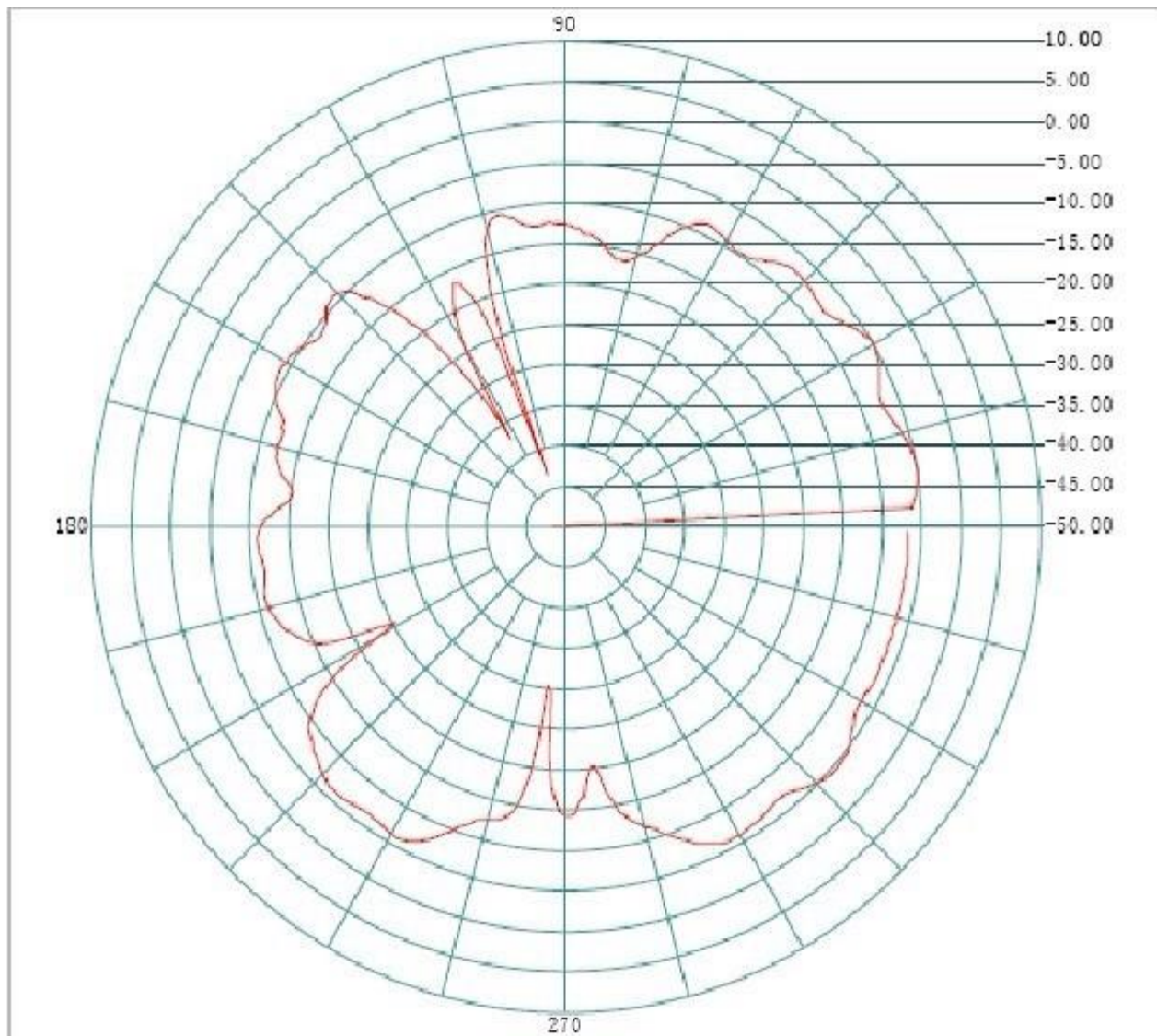
Maximum Value(dBi): **-4.29**

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

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

**2. Main antenna : 2480 MHz**

**2.1 Horizontal**



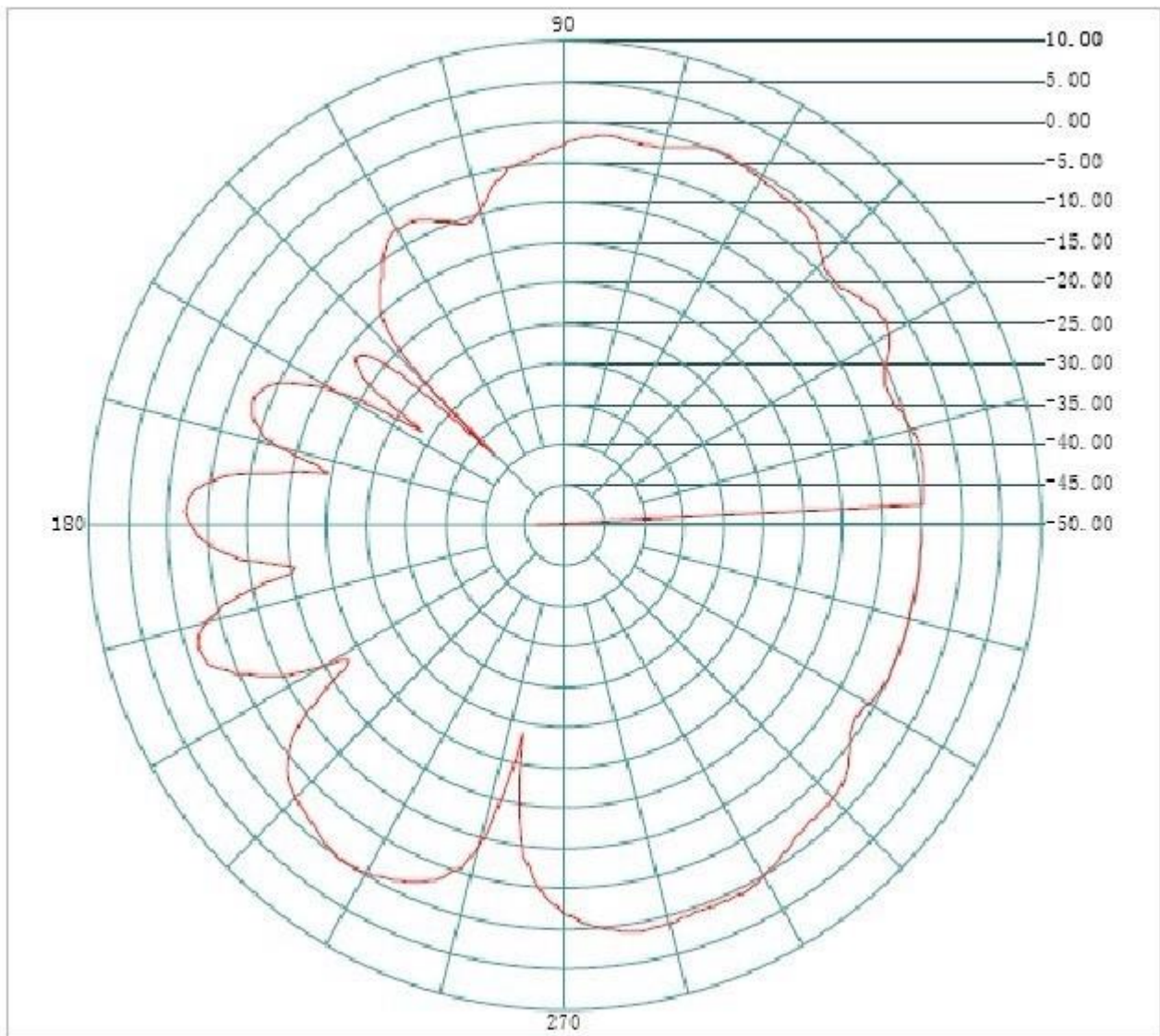
Frequency(MHZ): **2480** Antenna Polarity: **Horizontal**

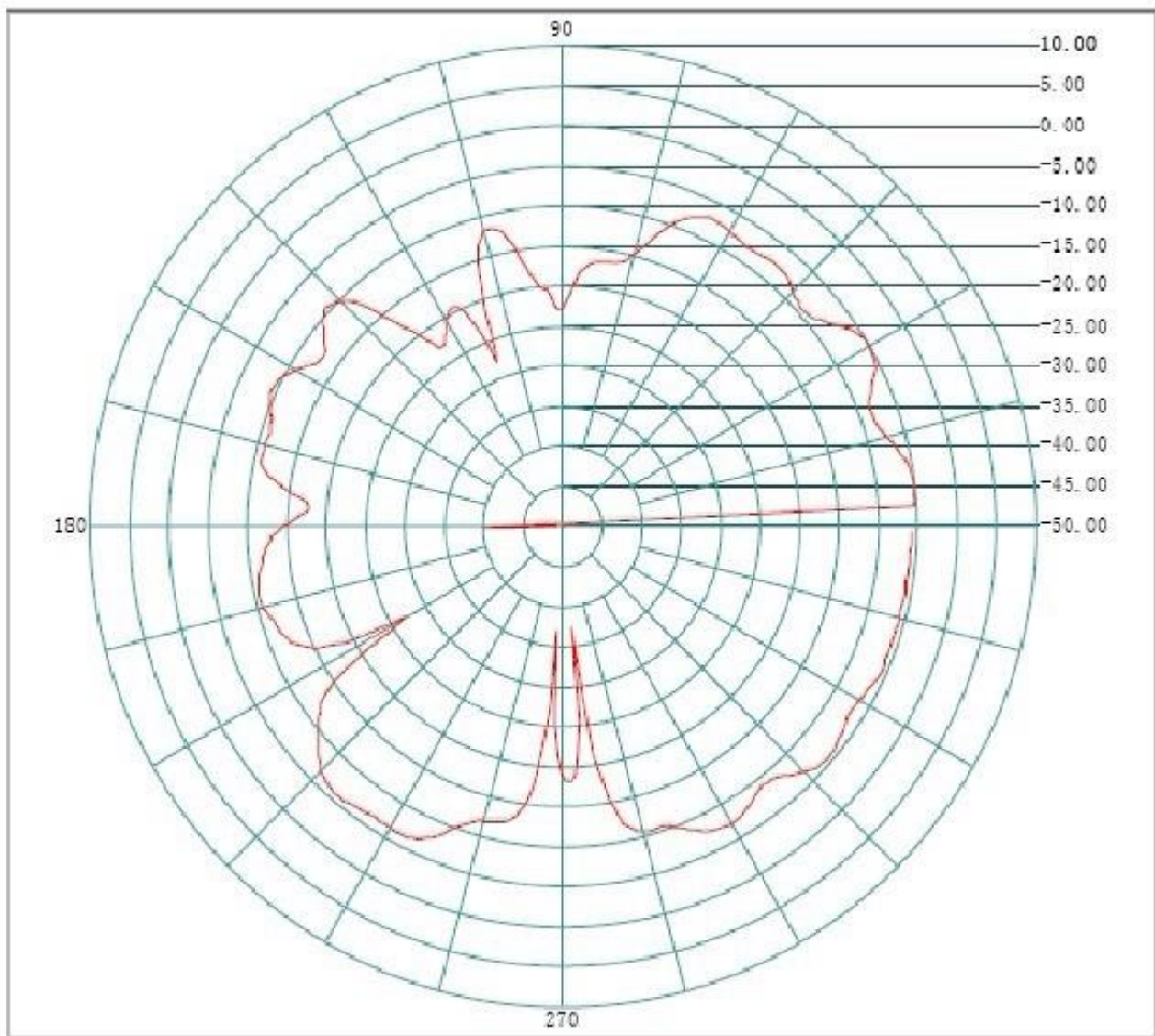
Maximum Value(dBi): **1.45**

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**