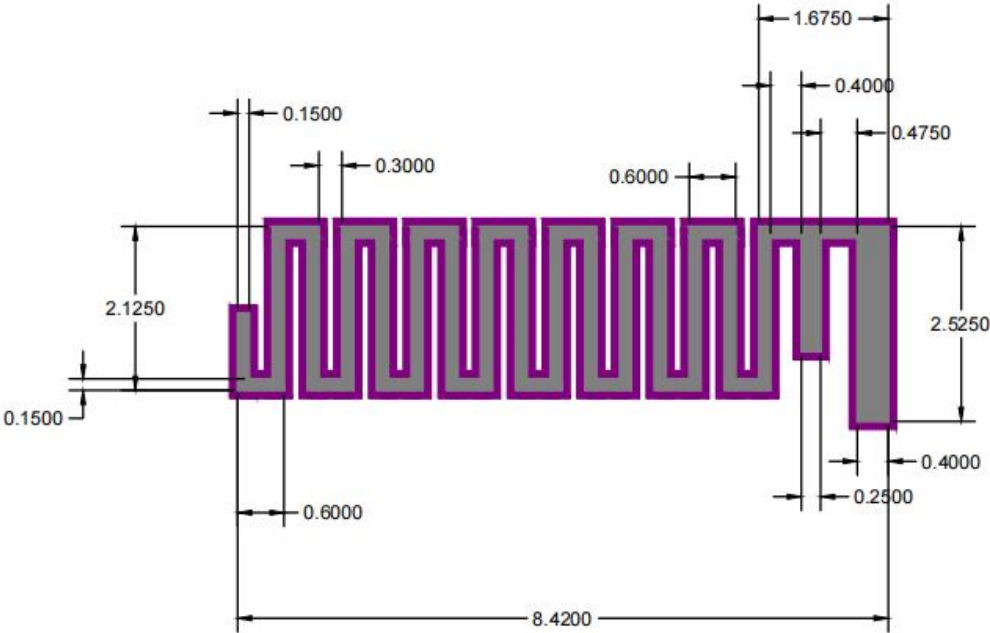


Antenna Specification

Specifications Summary

ITEM	SPEC.	
Model Name	IBM 2.4 GHz	
Center Frequency	2402 MHz	1.8 dBi
	2441 MHz	1.59 dBi
	2480 MHz	1.43 dBi
MAX. GAIN	1.8 dBi	
Polarization	Horizontal	
Azimuth Beam Pattern	Omni-directional	
Impedance	50 Ω	
Antenna Length	8.42cm	

Antenna Photo & Length (mm)

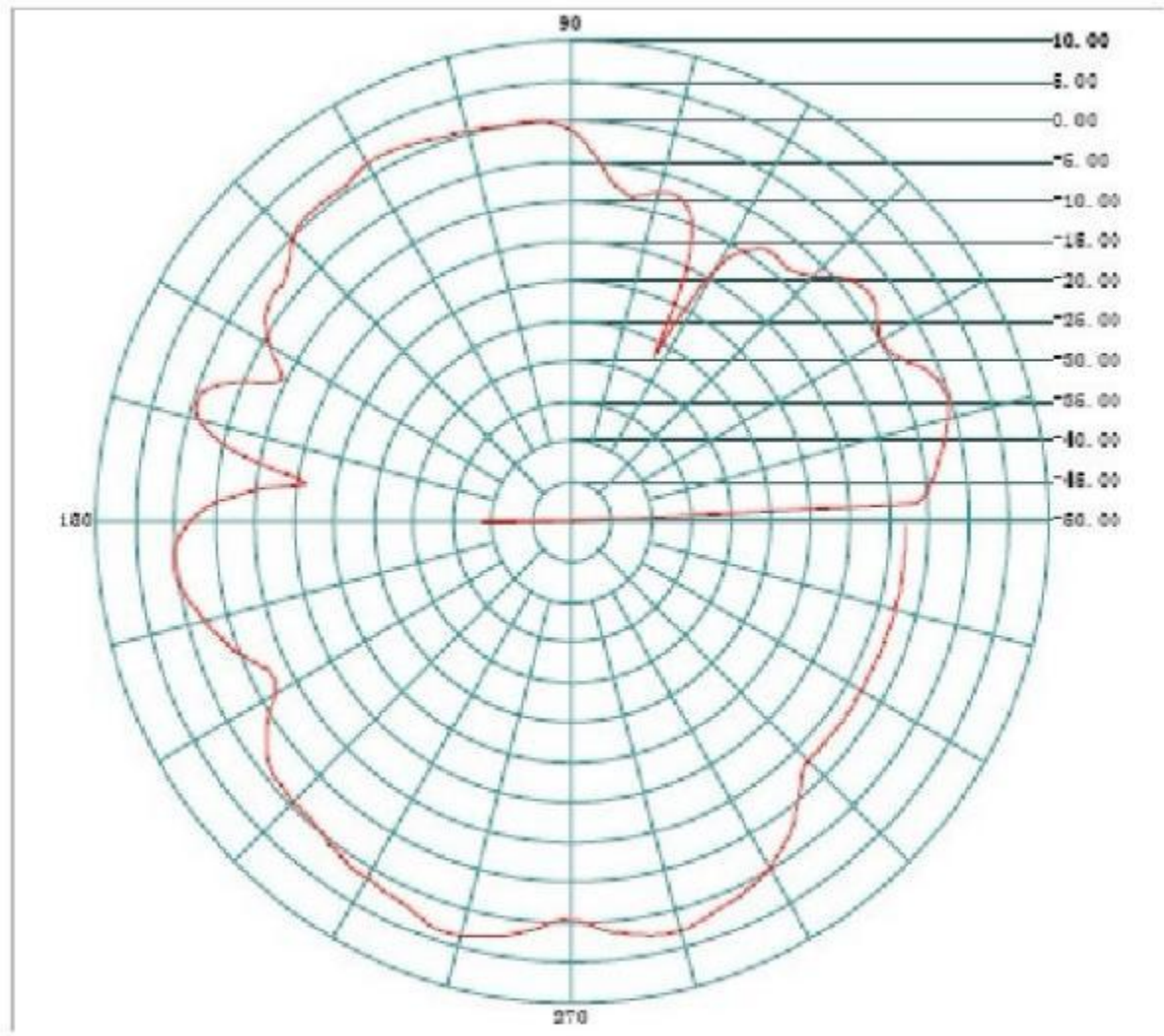


Manufacturer:	Hainanwanqutiaodongkejiyouxiangongsi
Address of Manufacturer:	Room 401, Unit 3, Bldg 16, Taoranli Quarter,Yunlong Town, Qiongshan District, Haikou, Hainan, China

Test Address	101,Building B,Zhuoke Science Park,No.190 Chongqing Road,ZhanChengShequ, Fuhai Sub-District,Bao'an District,Shenzhen,Guang Dong,China
Test Date	2025-12-21
Test Instrument	vector network analyzer - R&S ZVB20

1. Main antenna : 2402 MHz

1.1 Horizontal



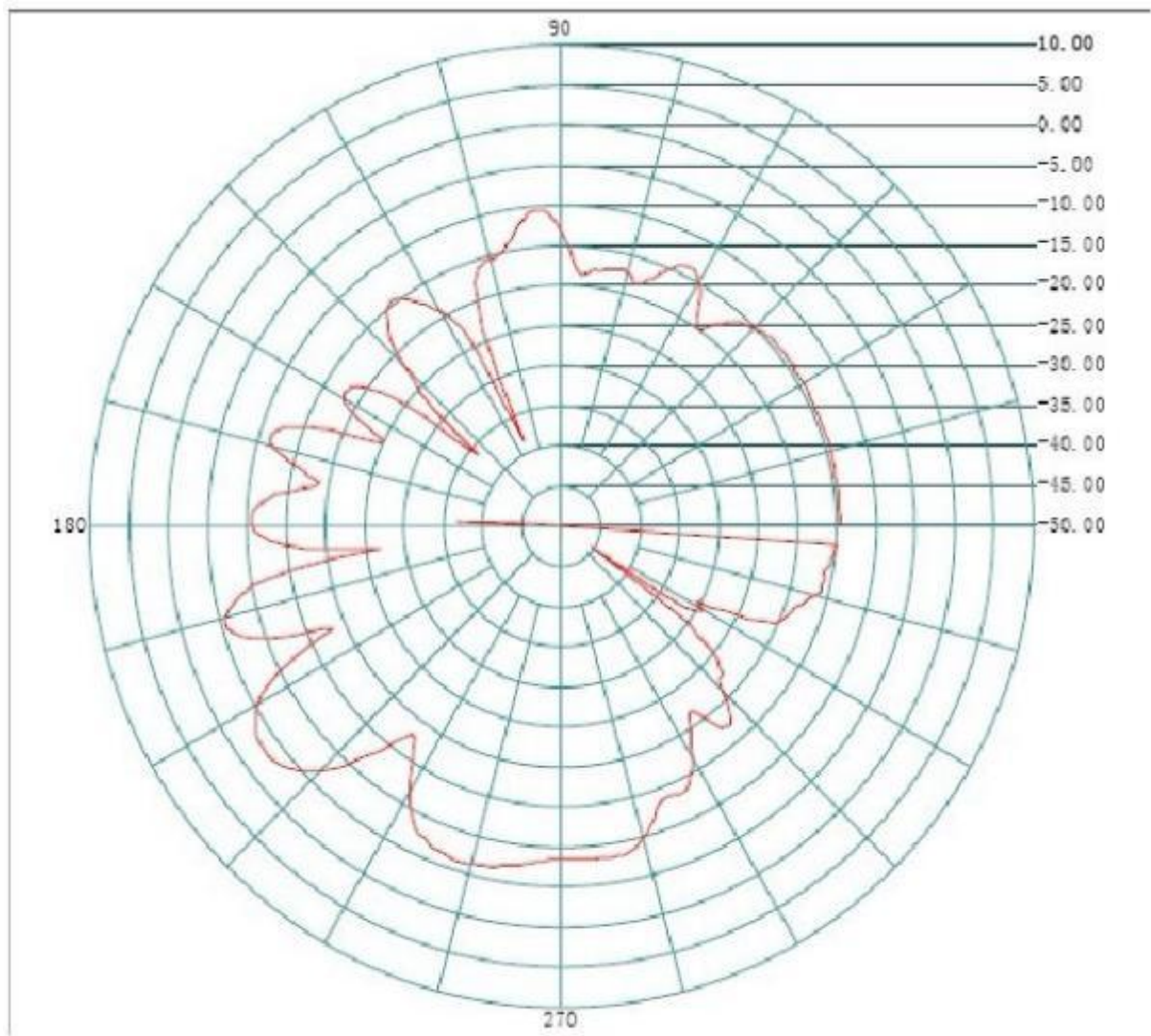
Frequency(MHZ): **2402** Antenna Polarity: **Horizontal**

Maximum Value(dBi): **1.8**

Average Gain(dBi) : **-1.42**

Minimum Gain(dBi): **-61.26**

1.2 Vertical



Frequency(MHZ): **2402**

Antenna Polarity: **Vertical**

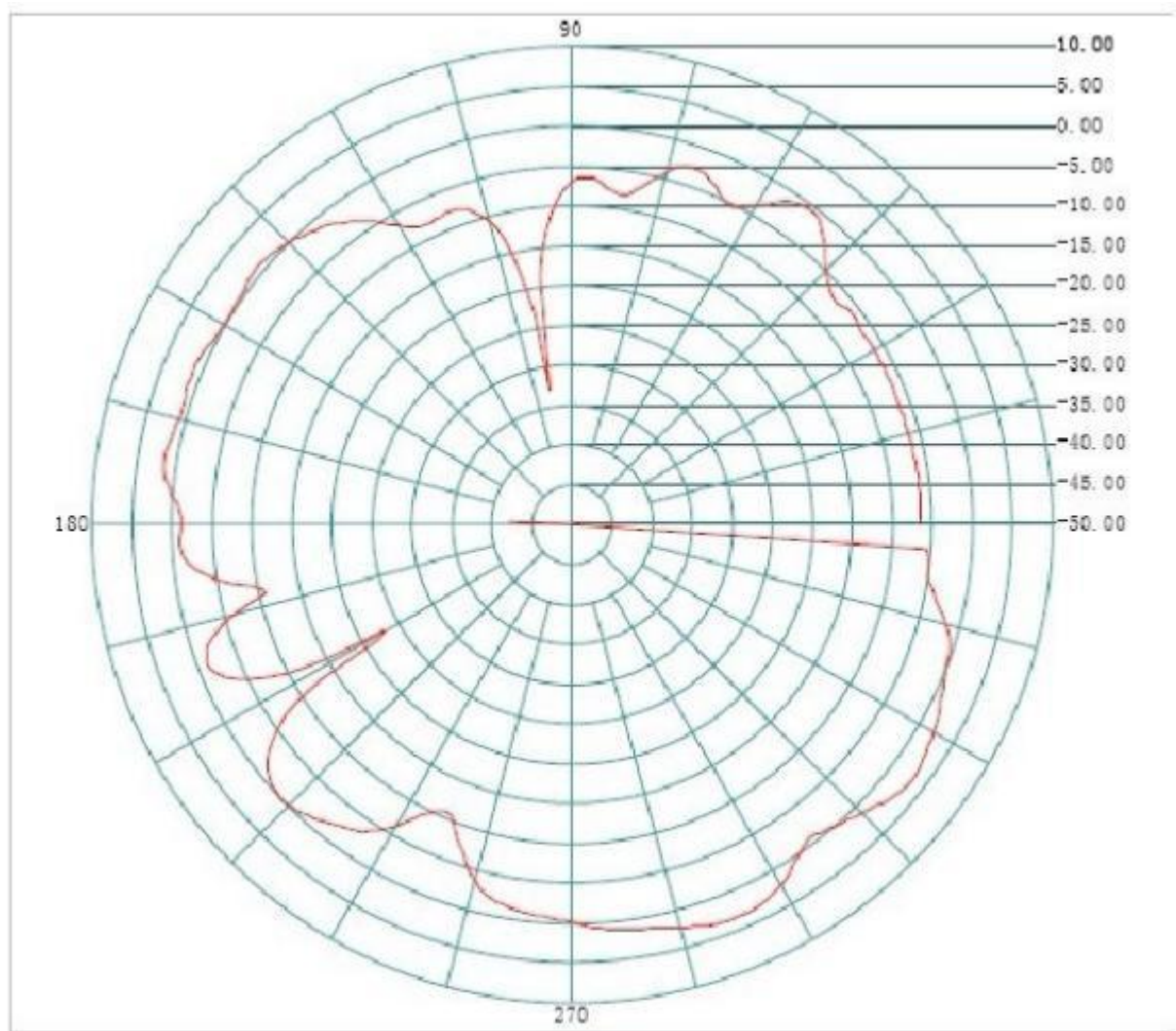
Maximum Value(dBi): **-2.99**

Average Gain(dBi) : **-11.5**

Minimum Gain(dBi): **-63.1**

2. Main antenna : 2441 MHz

2.1 Horizontal



Frequency(MHZ): **2441**

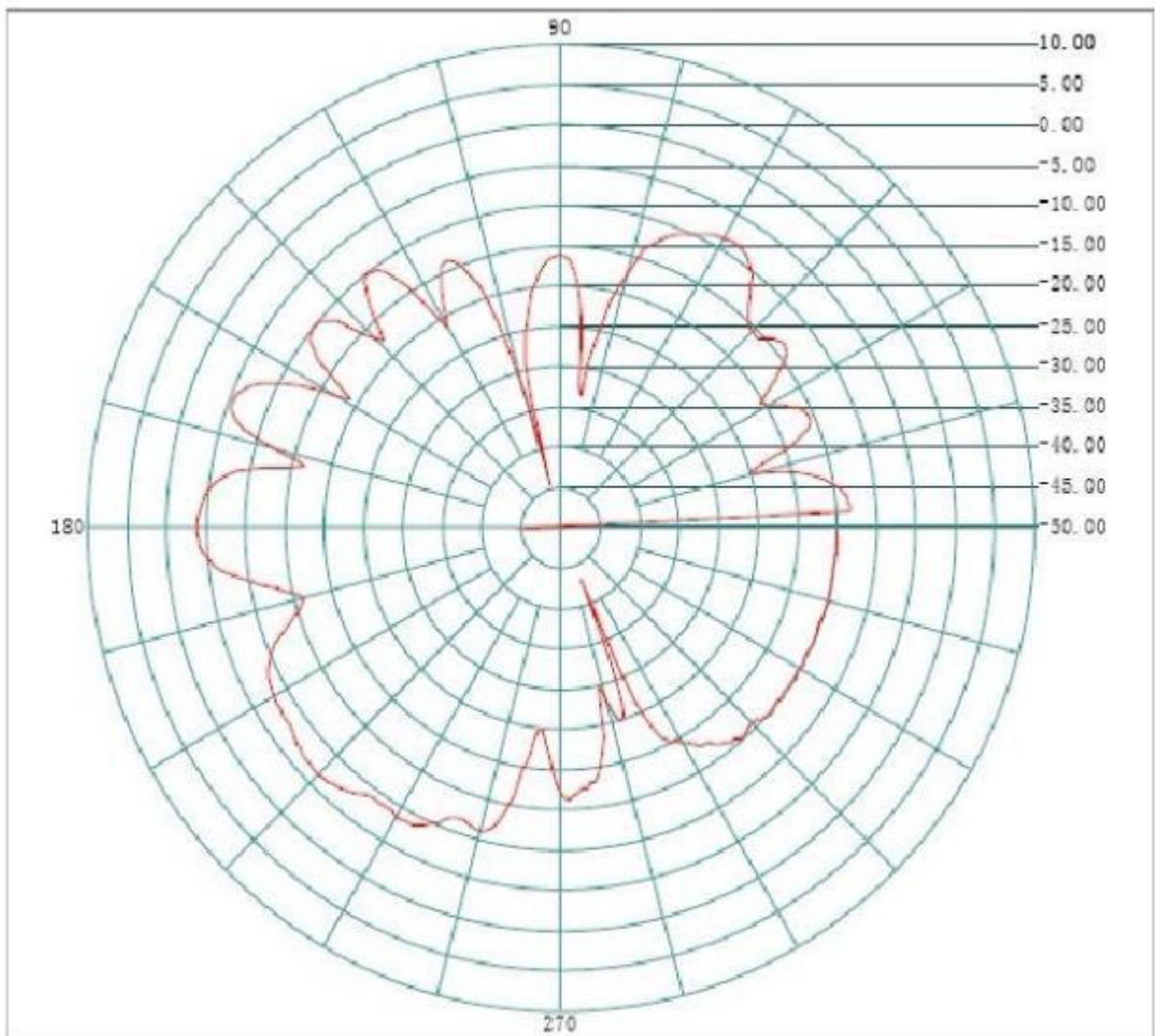
Antenna Polarity: **Horizontal**

Maximum Value(dBi): **1.59**

Average Gain(dBi) : **-1.41**

Minimum Gain(dBi): **-57.8**

2.2 Vertical



Frequency(MHZ): **2441**

Antenna Polarity: **Vertical**

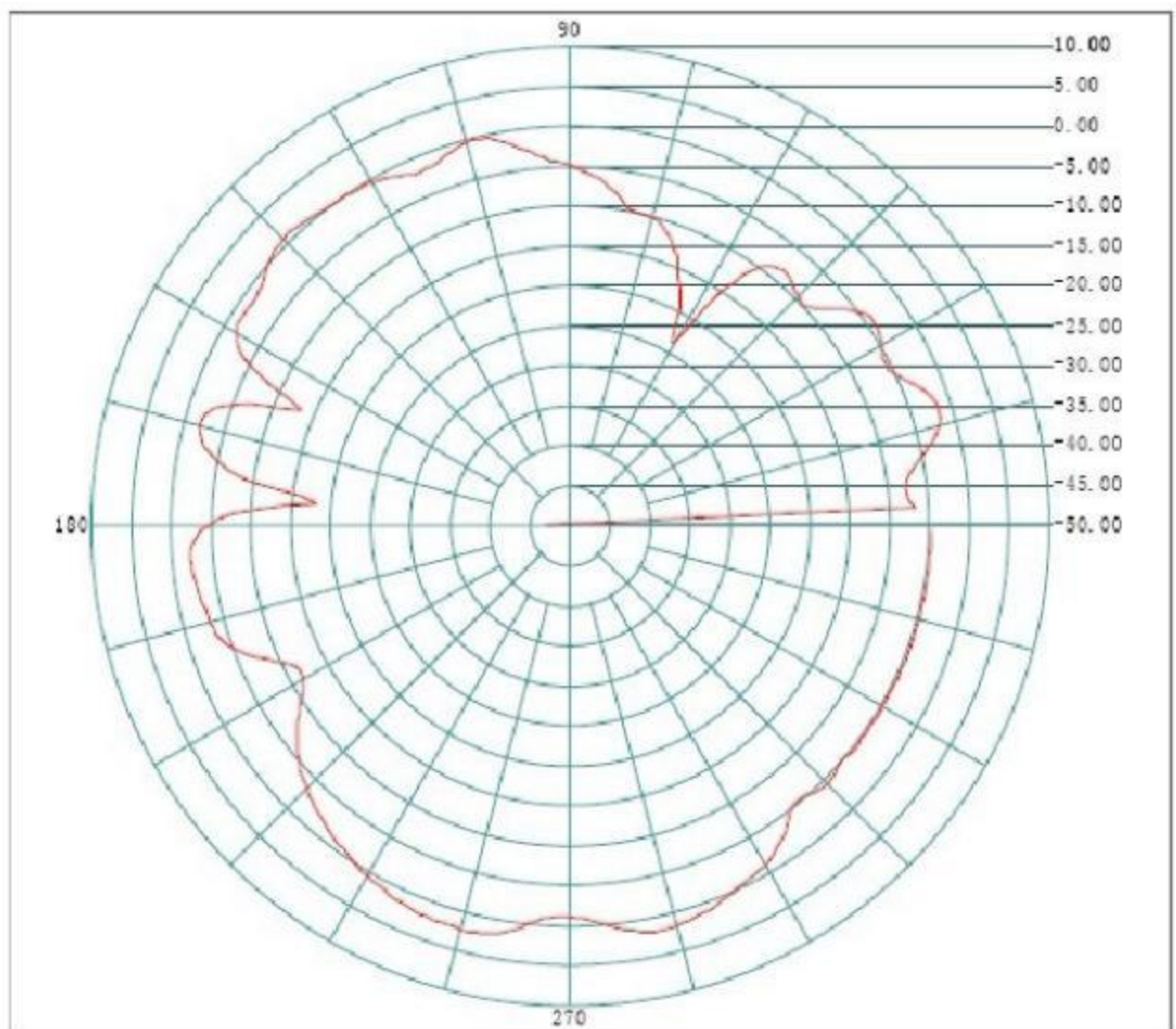
Maximum Value(dBi): **-3.9**

Average Gain(dBi) : **-11.5**

Minimum Gain(dBi): **-55.3**

2. Main antenna : 2480MHz

2.1 Horizontal



Frequency(MHZ): **2480**

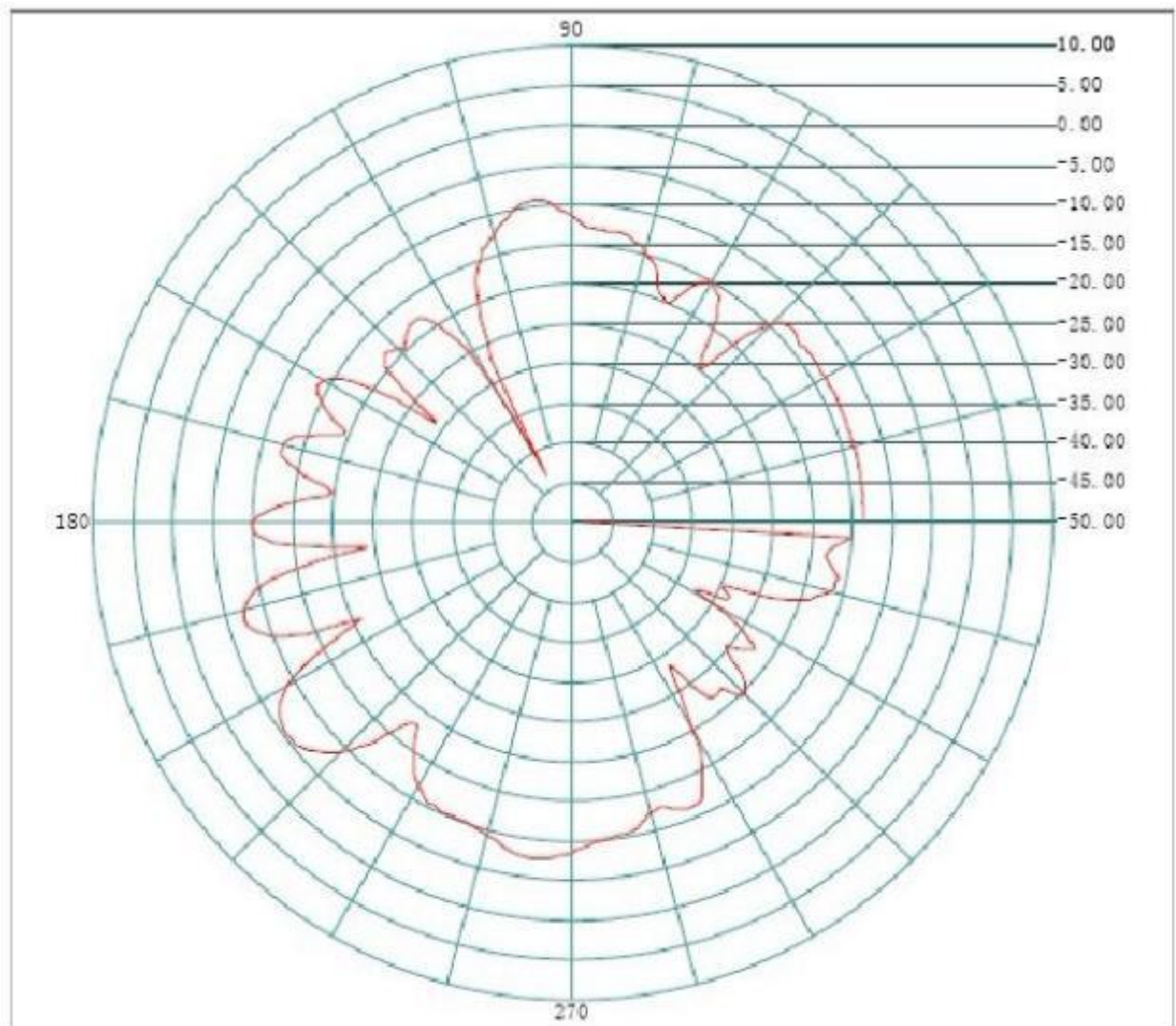
Antenna Polarity: **Horizontal**

Maximum Value(dBi): **1.43**

Average Gain(dBi) : **-2.44**

Minimum Gain(dBi): **-53.04**

2.2 Vertical



Frequency(MHZ): **2480**

Antenna Polarity: **Vertical**

Maximum Value(dBi): **-5.38**