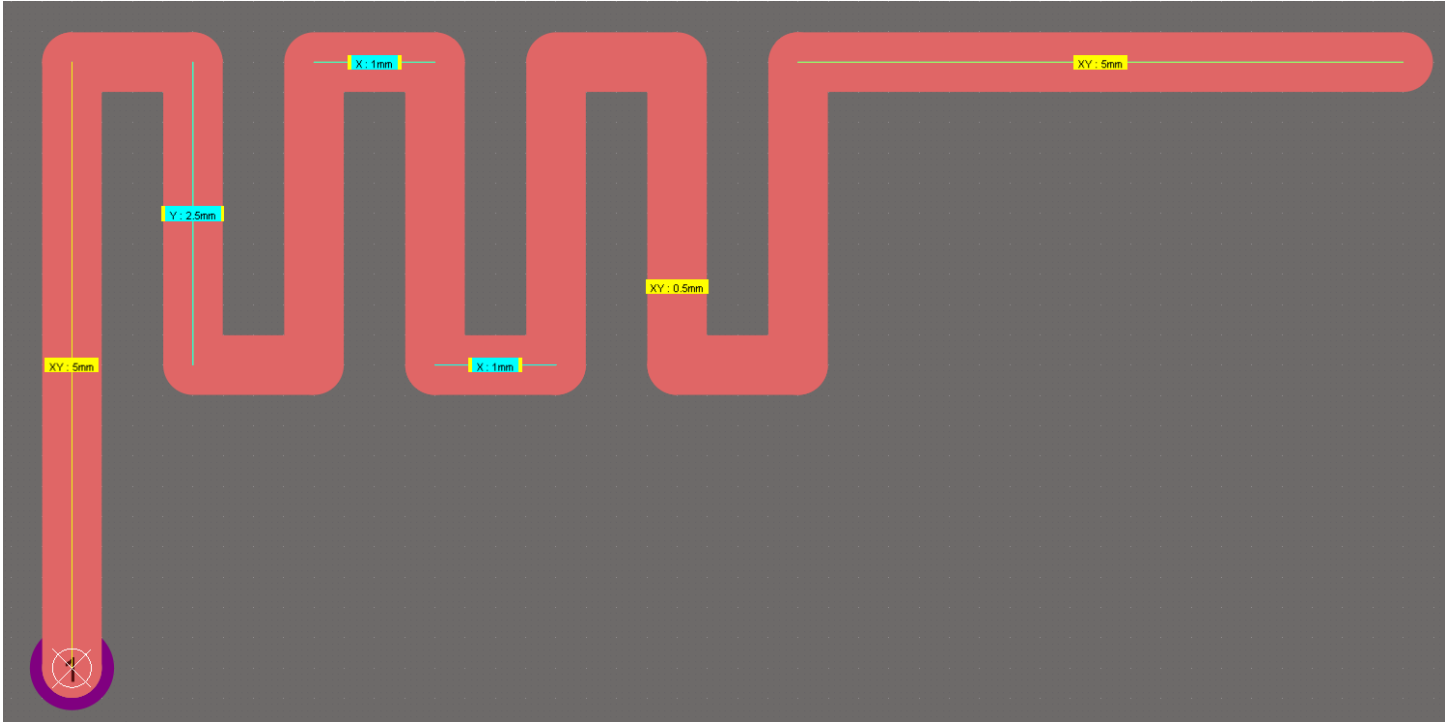


Antenna Specification

Specifications Summary

ITEM	SPEC.	
Model Name	IBM 2.4 GHz	
Center Frequency	2403 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	3.3cm	

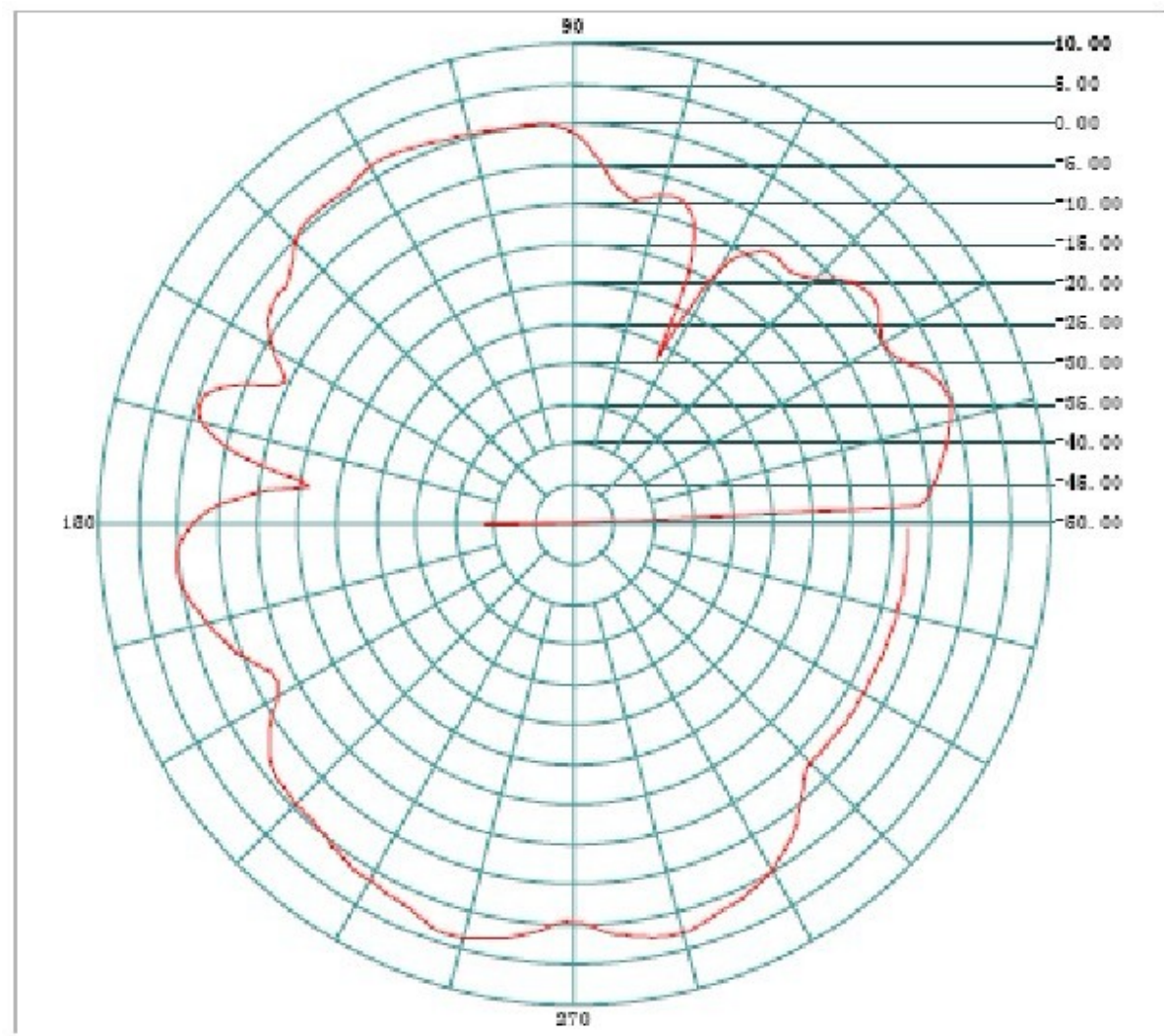
Antenna Photo & Length (mm)



Test Address	16 Tzu Chiang Road, Hsinchu Industrial District Hsinchu Hsien 303, Taiwan
Test Date	2019-04-14
Test Instrument	vector network analyzer - R&S ZVB20

1. Main antenna : 2403 MHz

1.1 Horizontal



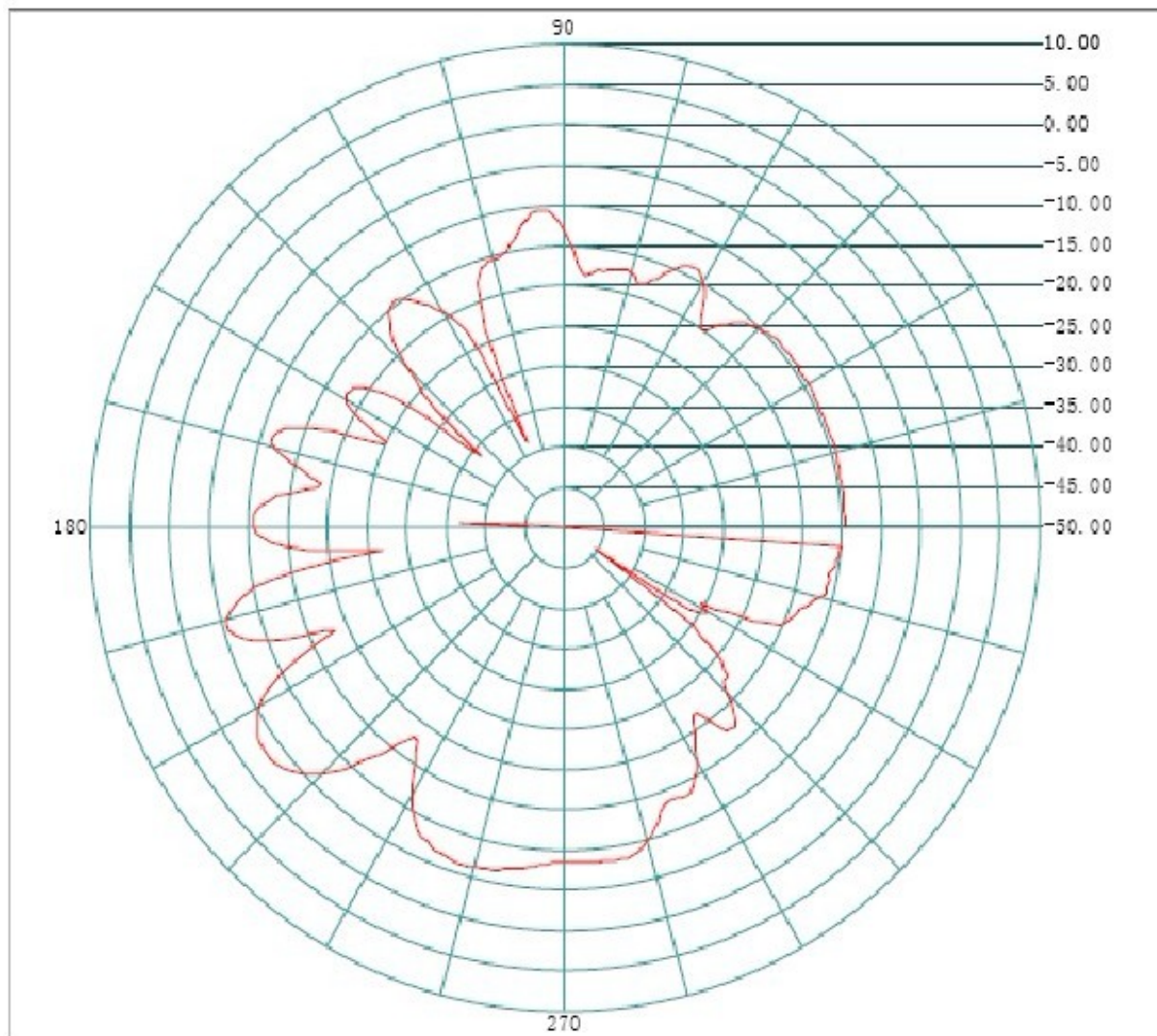
Frequency(MHZ): **2403** Antenna Polarity: **Horizontal**

Maximum Value(dBi): **1.8**

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

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

1.2 Vertical



Frequency(MHZ): **2403**

Antenna Polarity: **Vertical**

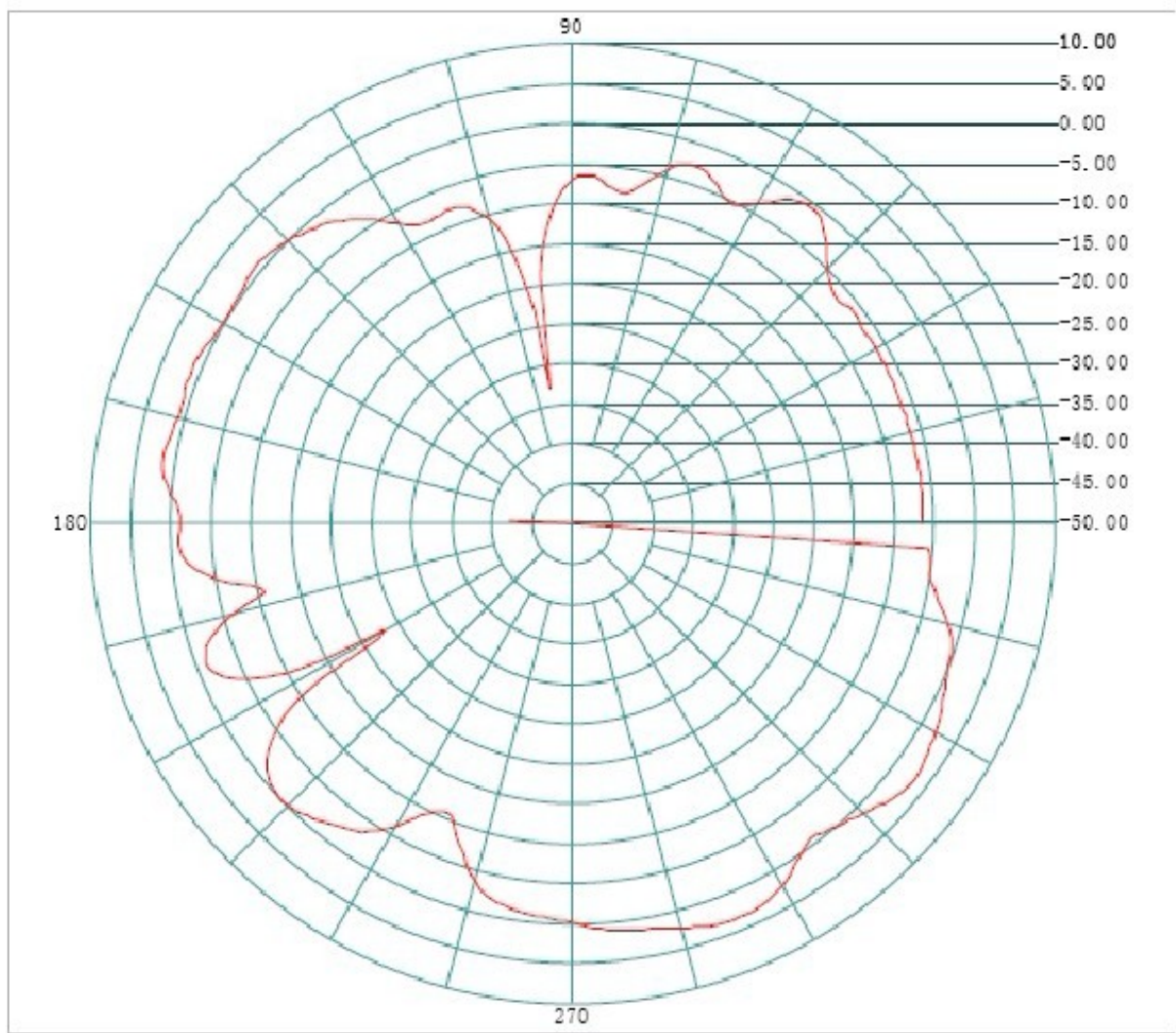
Maximum Value(dBi): **-2.99**

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

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

2. Main antenna : 2441 MHz

2.1 Horizontal



Frequency(MHZ): **2441**

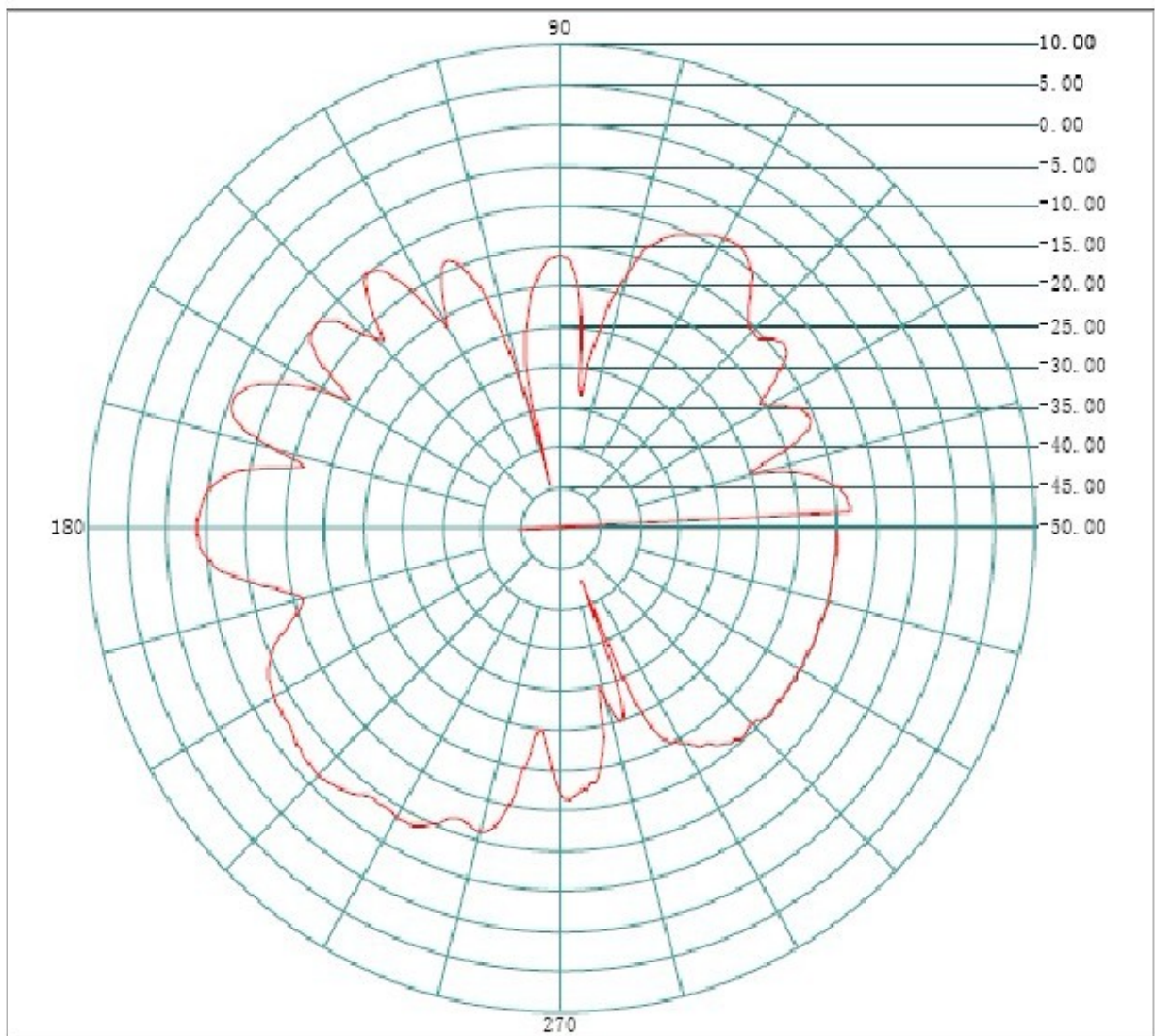
Antenna Polarity: **Horizontal**

Maximum Value(dBi): **1.59**

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

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

2.2 Vertical



Frequency(MHZ): **2441**

Antenna Polarity: **Vertical**

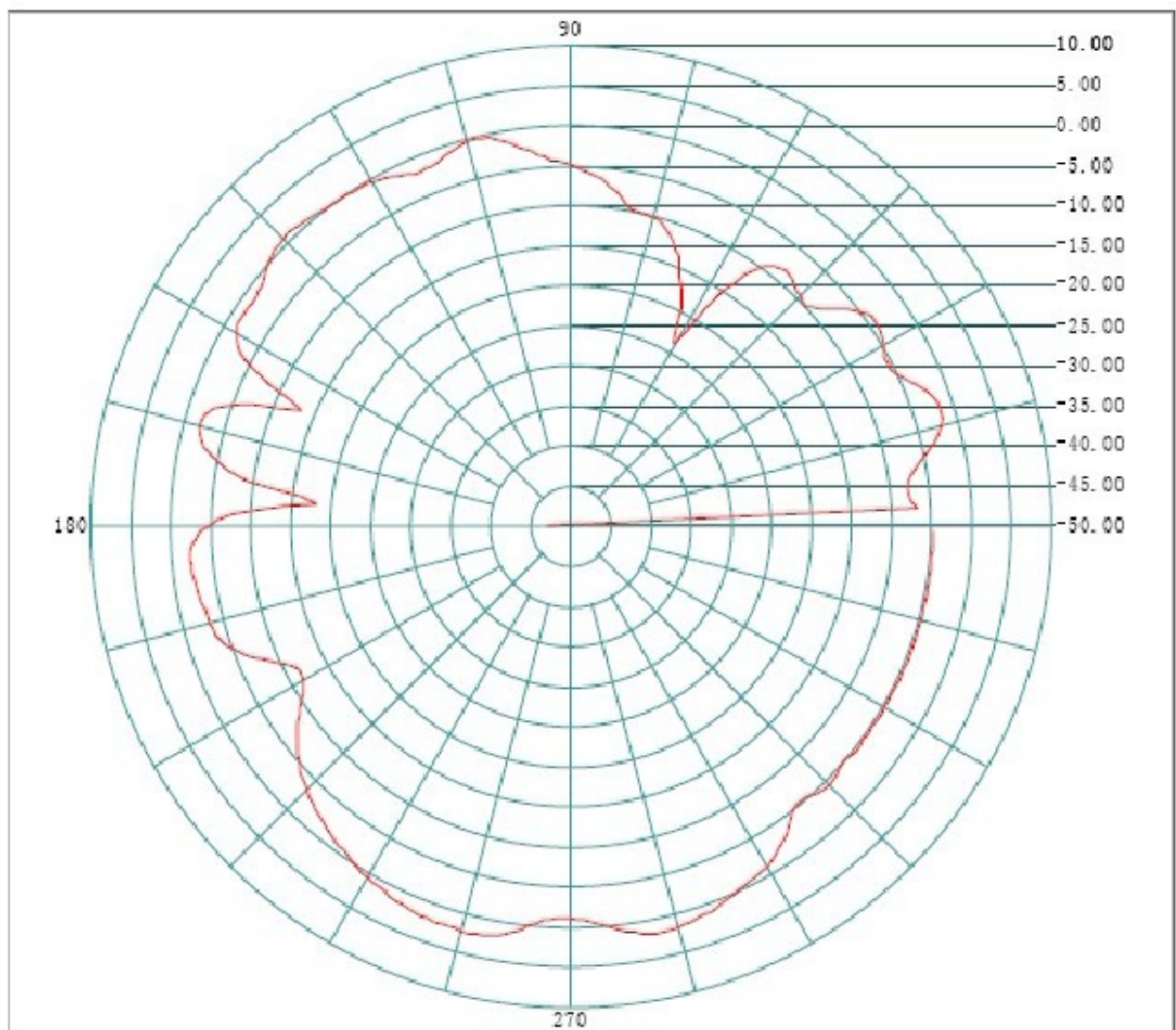
Maximum Value(dBi): **-3.9**

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

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

2. Main antenna : 2480MHz

2.1 Horizontal



Frequency(MHZ): **2480**

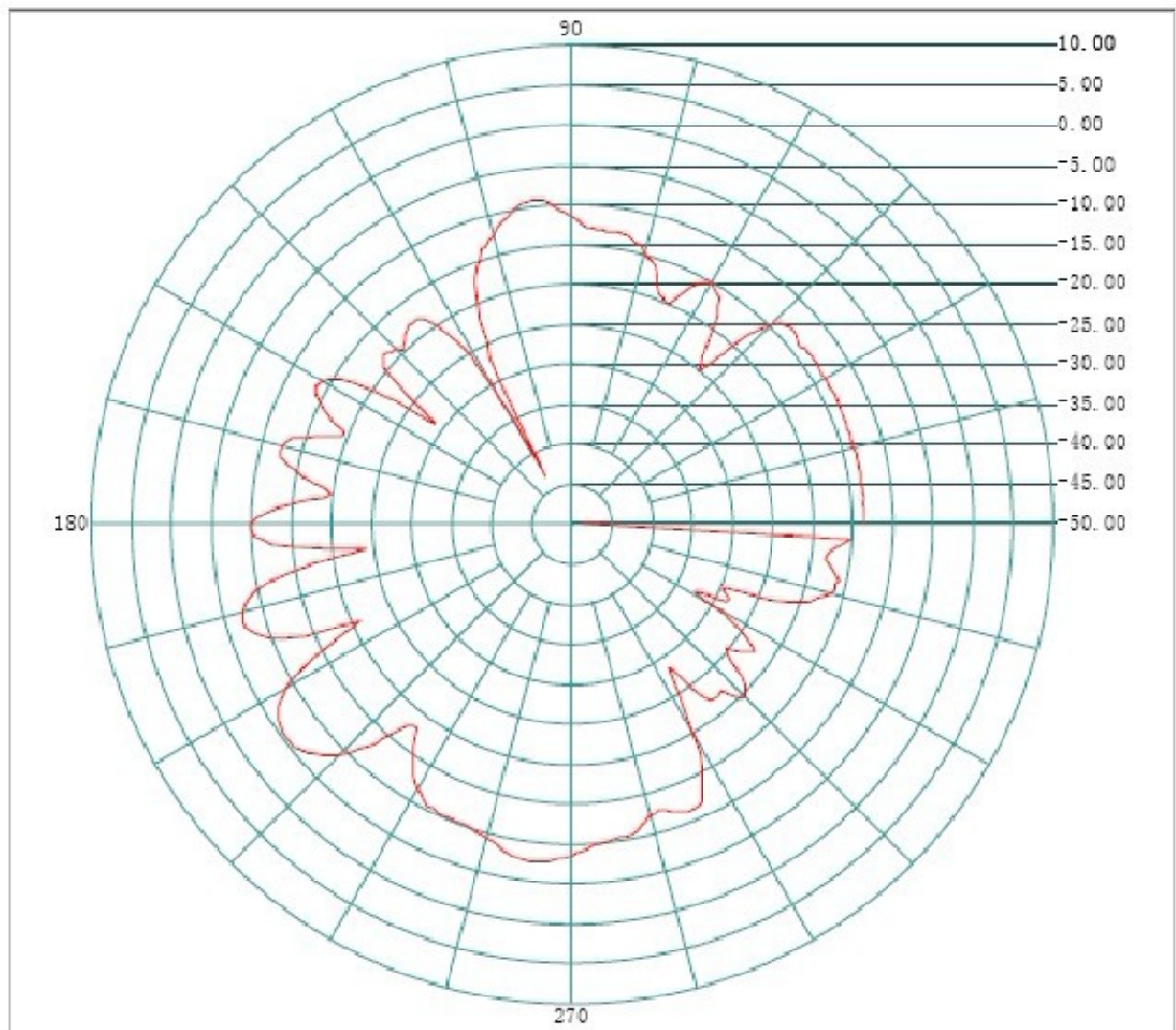
Antenna Polarity: **Horizontal**

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**

Average Gain(dBi) : **-12.6**

Minimum Gain(dBi): **-48.4**