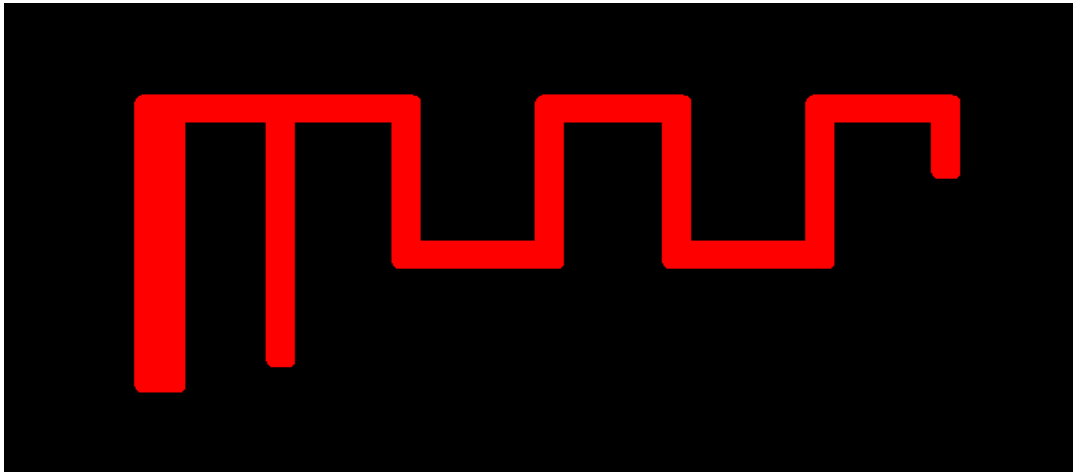


Antenna Specification

Specifications Summary

ITEM	SPEC.	
Model Name	IBM FM	
Center Frequency	85 MHz	1.8 dBi
	98 MHz	1.59 dBi
	108 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)

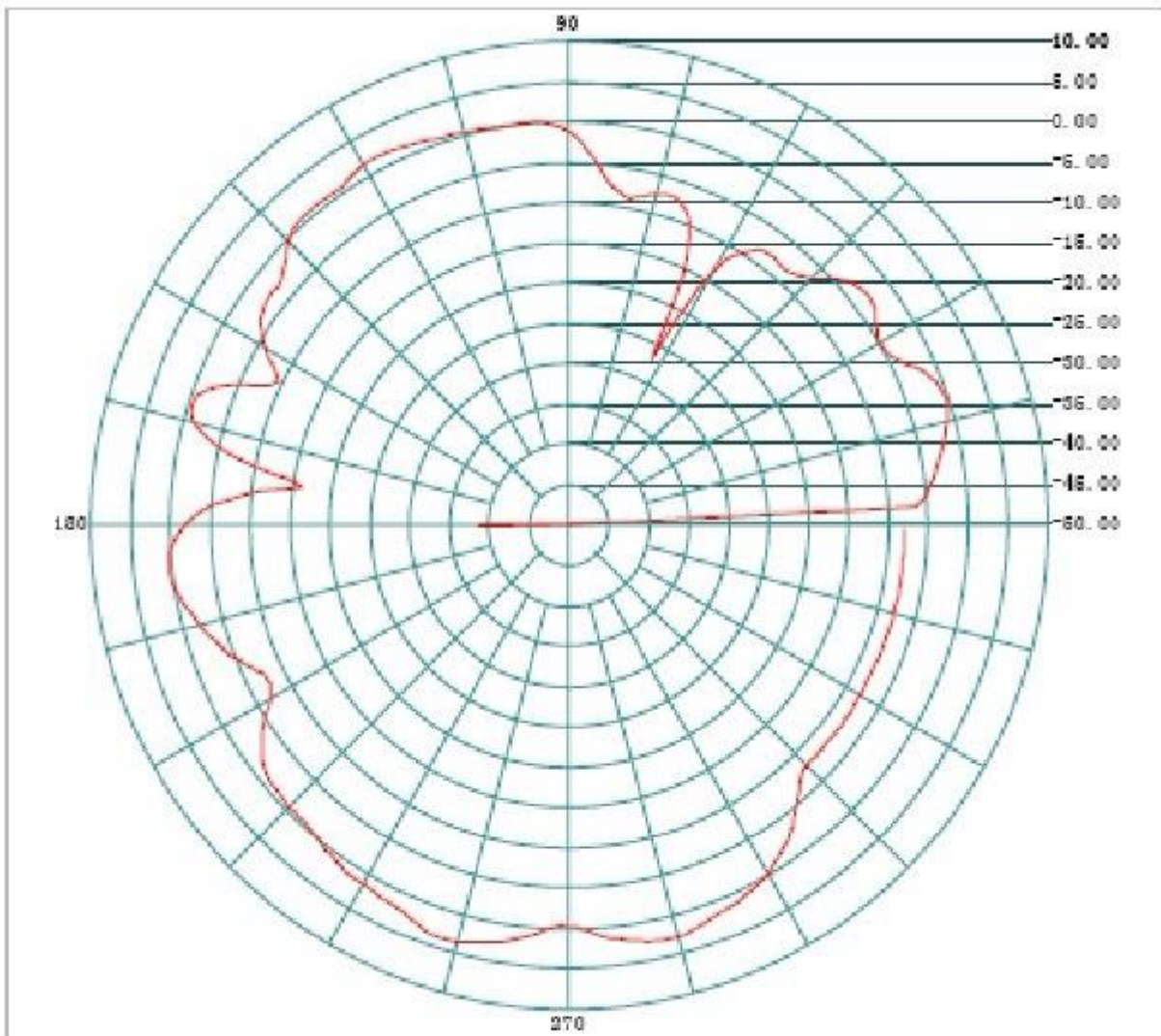


Manufacture: Time Technology Japan Co., Ltd.

Test Address	16 Tzu Chiang Road, Hsinchu Industrial District Hsinchu Hsien 303, Taiwan
Test Date	2009-04-14
Test Instrument	vector network analyzer - R&S ZVB20

1. Main antenna : 85 MHz

1.1 Horizontal



Frequency(MHZ): **85**

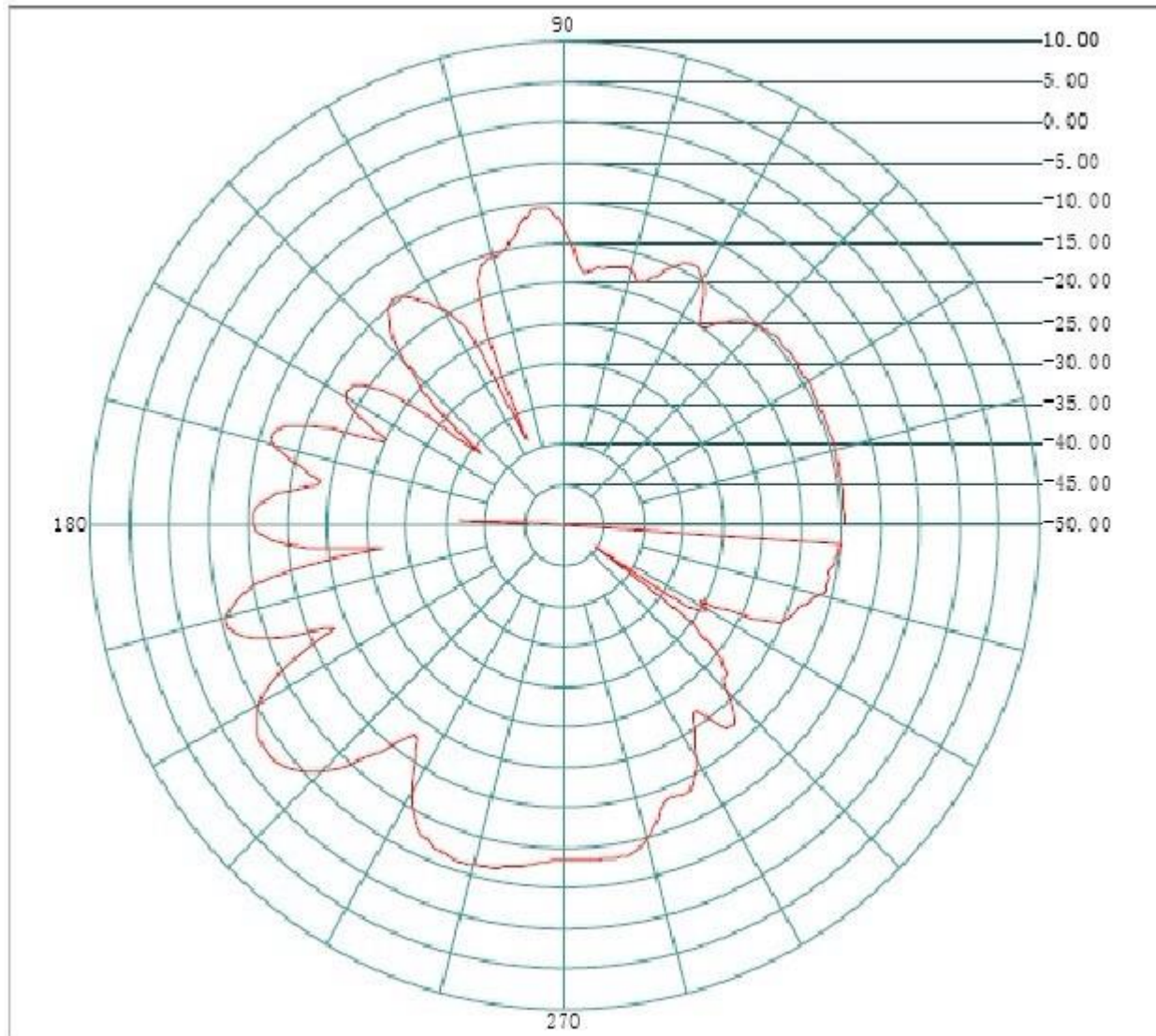
Antenna Polarity: **Horizontal**

Maximum Value(dBi): **1.8**

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

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

1.2 Vertical



Frequency(MHZ): **85**

Antenna Polarity: **Vertical**

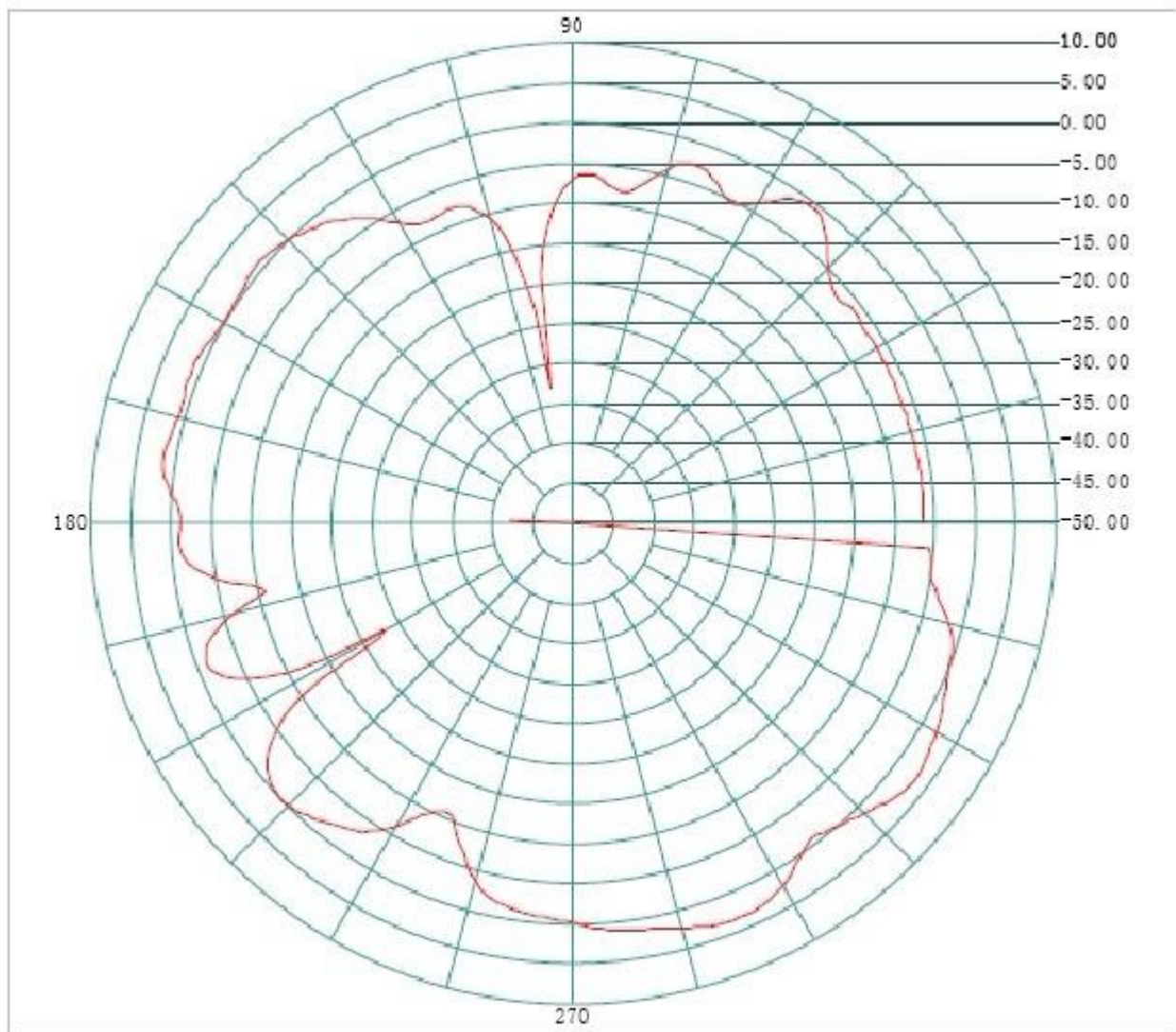
Maximum Value(dBi): **-2.99**

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

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

2. Main antenna : 98 MHz

2.1 Horizontal



Frequency(MHZ): **98**

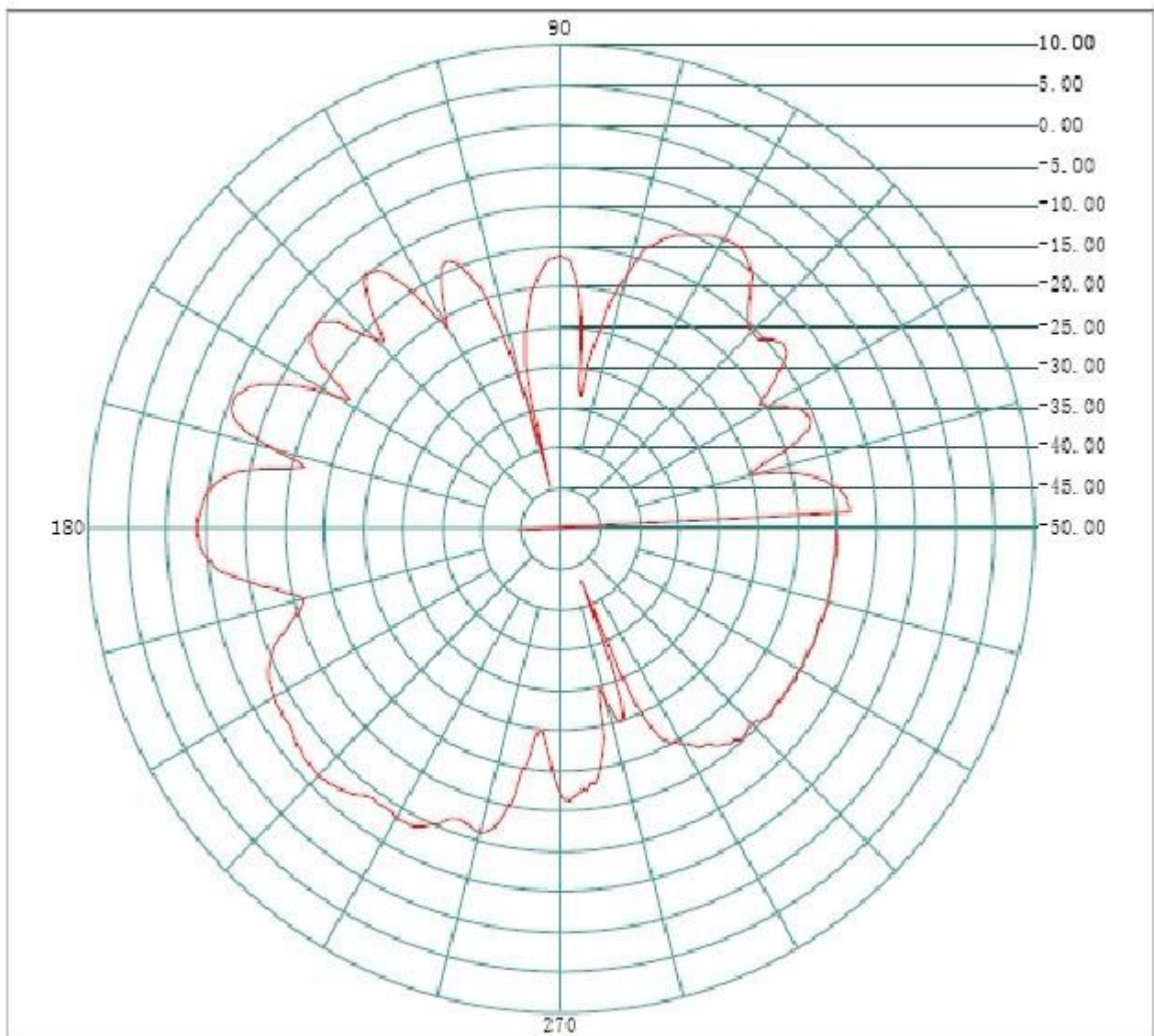
Antenna Polarity: **Horizontal**

Maximum Value(dBi): **1.59**

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

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

2.2 Vertical



Frequency(MHZ): **98**

Antenna Polarity: **Vertical**

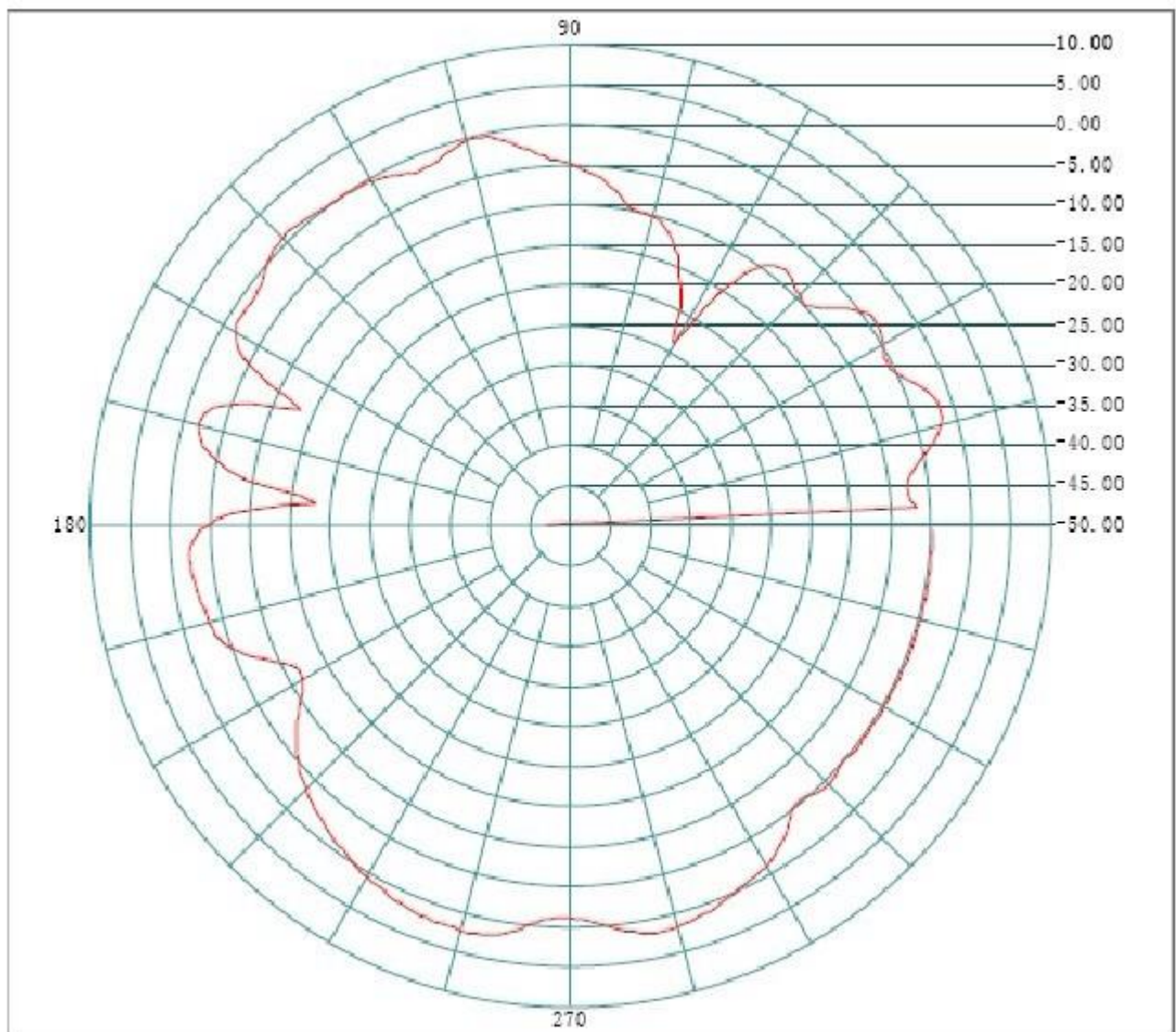
Maximum Value(dBi): **-3.9**

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

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

2. Main antenna : 108MHz

2.1 Horizontal



Frequency(MHZ): **108**

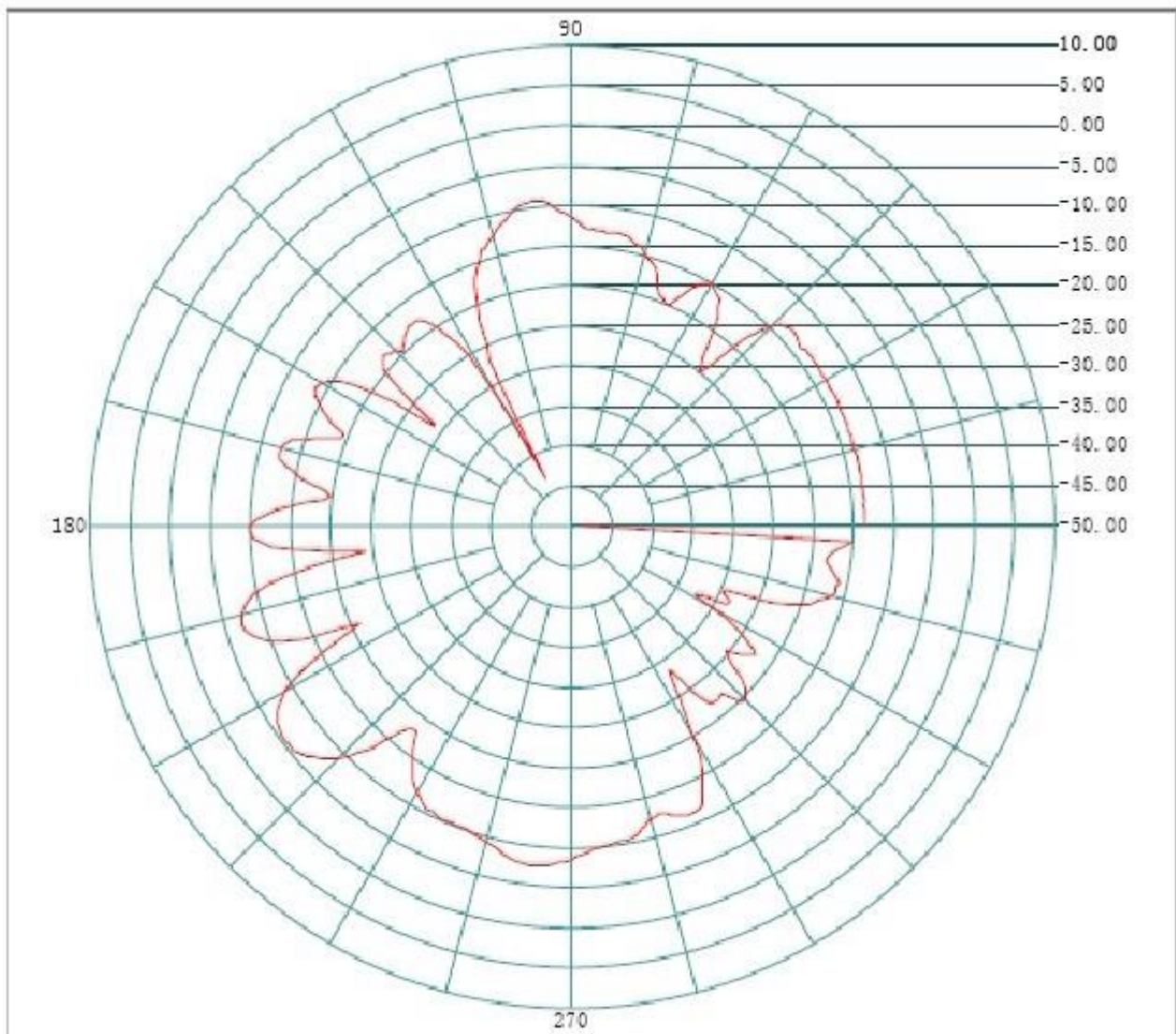
Antenna Polarity: **Horizontal**

Maximum Value(dBi): **1.43**

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

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

2.2 Vertical



Frequency(MHZ): 108

Antenna Polarity: **Vertical**

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

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

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