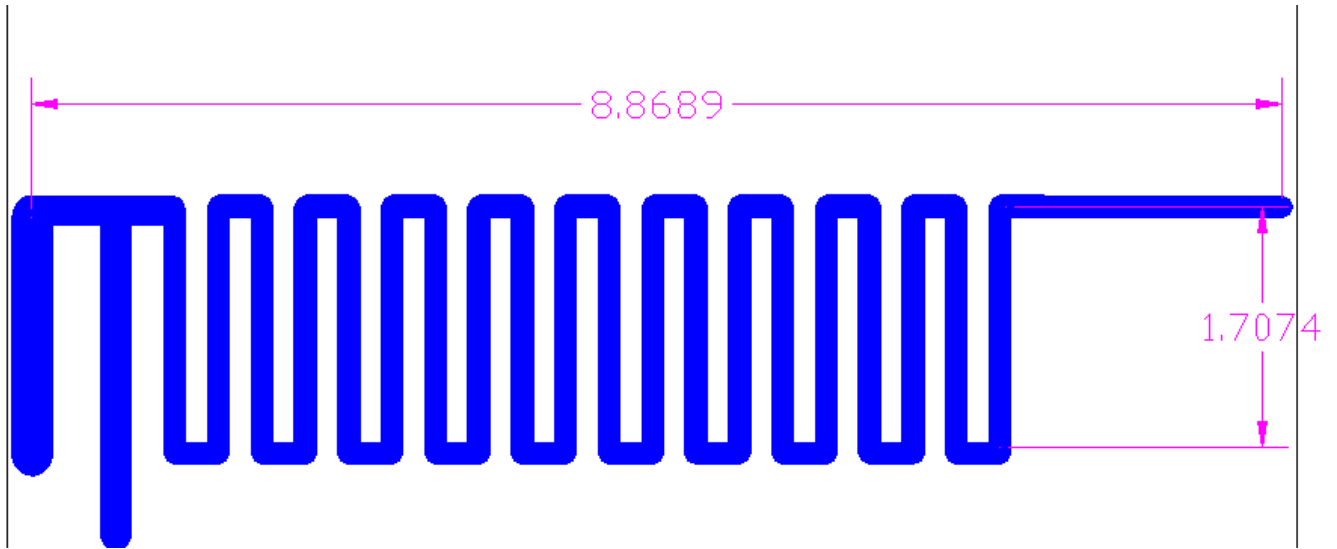


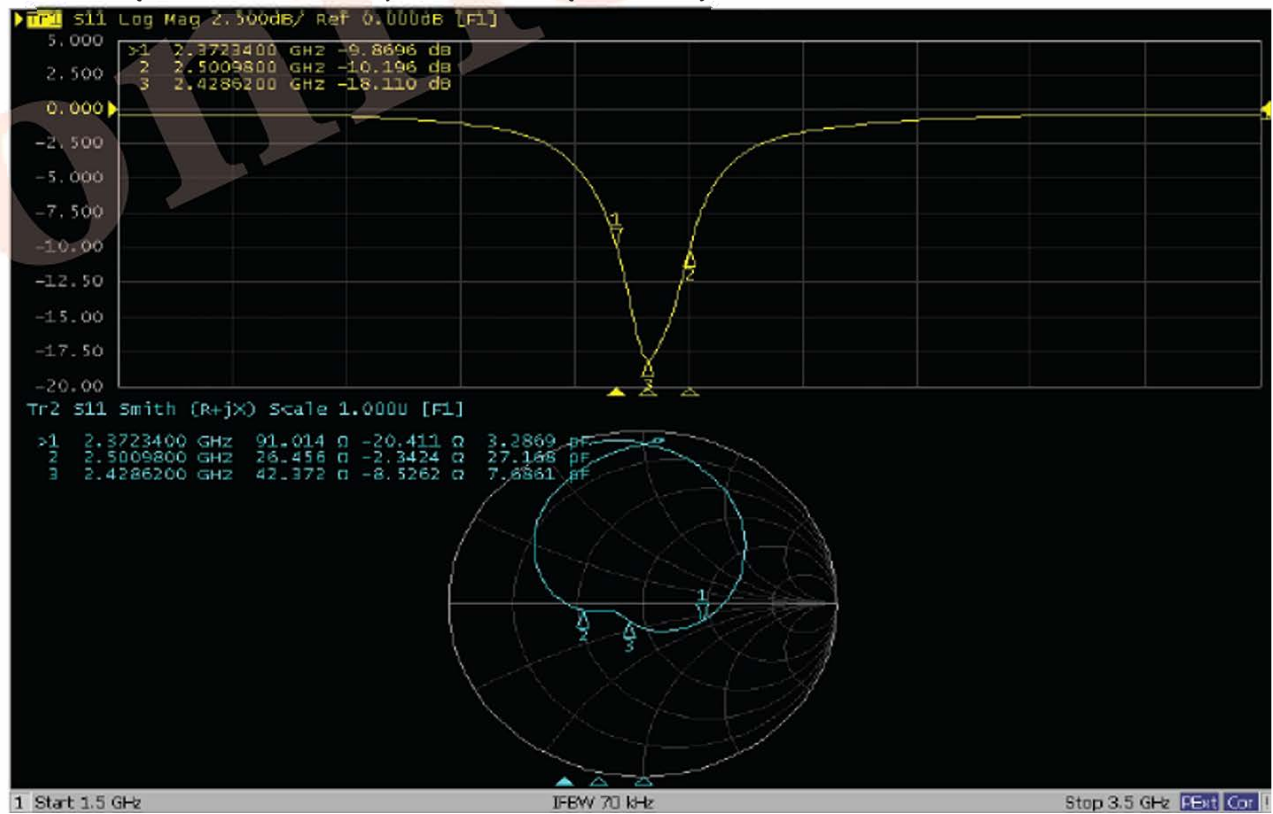
# Type\_3 Antenna Design Layout Guidelines & Pattern

1.天線具體尺寸規格如下(mm):



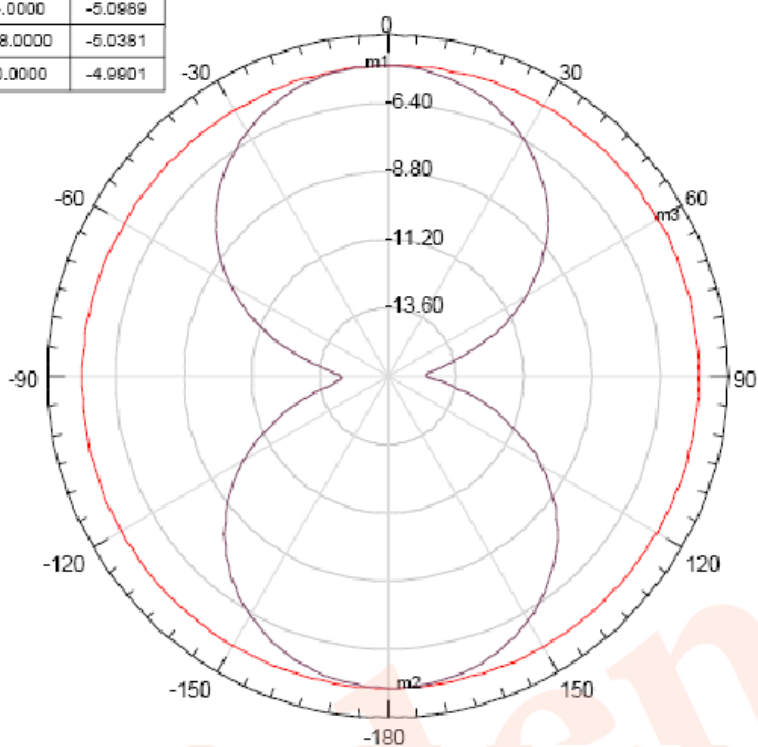
### 3.天線量測及場形模擬結果如下:

\*返回損耗(Return Loss) / 駐波比(VSWR)量測:



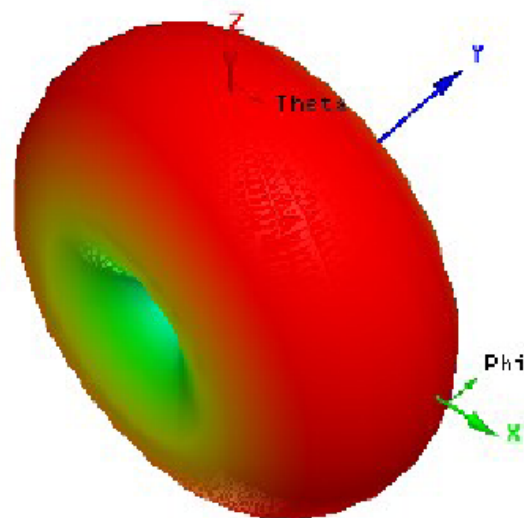
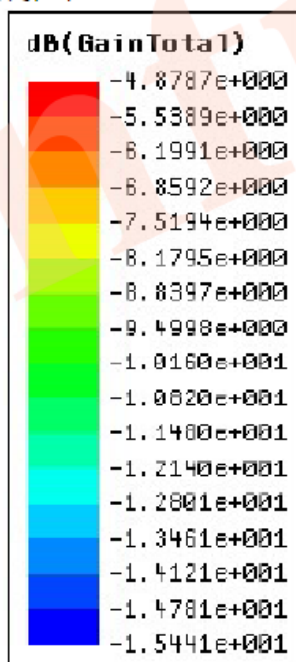
**\*2D場形模擬圖:**

Name	Theta	Ang	Mag
m1	-4.0000	-4.0000	-5.0989
m2	178.0000	178.0000	-5.0381
m3	80.0000	80.0000	-4.9901



Curve Info	
—	dB(GainTotal)
Setup1 : Sweep1	Phi='0deg'
—	dB(GainTotal)
Setup1 : Sweep1	Phi='90deg'

**\*3D場形模擬圖:**



(圖示五)

由上面量測及模擬後可得知此款天線的增益約只可達到-5dBi左右.

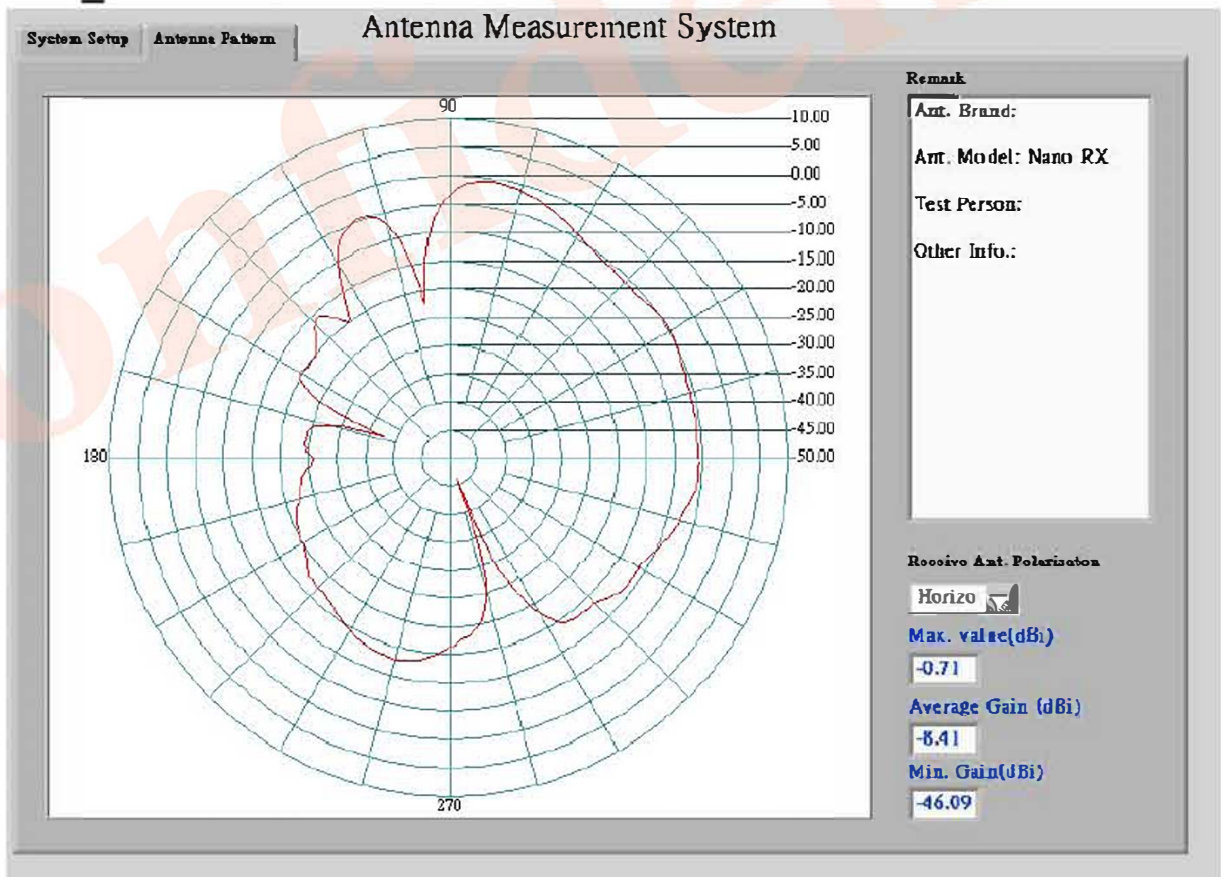
## 4.天線實際場形(強)測試如下:

Summary

ITEM	SPEC.	
Antenna Type	Type_2_Single Wiggle Antenna	
Center Frequency	2402 MHz	- 0.71 dBi
	2446 MHz	- 0.84 dBi
	2479 MHz	- 1.75 dBi
Max. GAIN	- 0.71 dBi	
Mini. GAIN	- 55.15 dBi	
AVG GAIN	- 8.4 dBi	
DUT Polarization	Horizontal & Vertical	
TEST Output Power Level	10dBm	
Impedance	50 $\Omega$	

(表一)

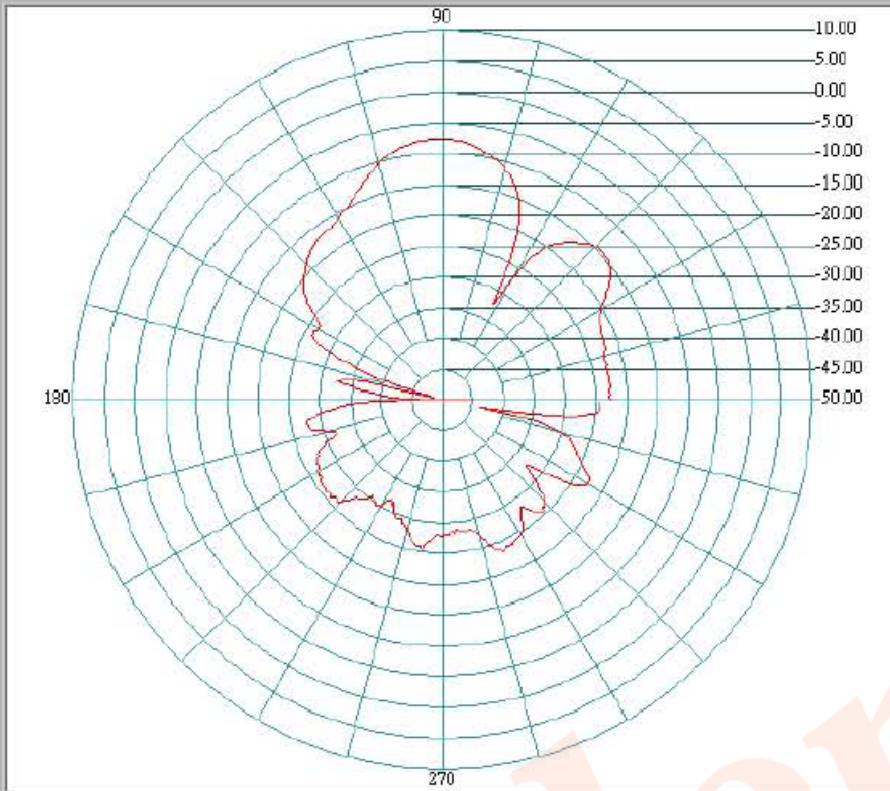
Center Frequency \_2402MHz  
\* DUT \_Horizontal



# Antenna Measurement System

System Setup

Antenna Pattern



Remark

Ant. Brand:

Ant. Model: Nano RX

Test Person:

Other Info.:

Receive Ant. Polarization

Vertical

Max. value(dBi)

-7.73

Average Gain (dBi)

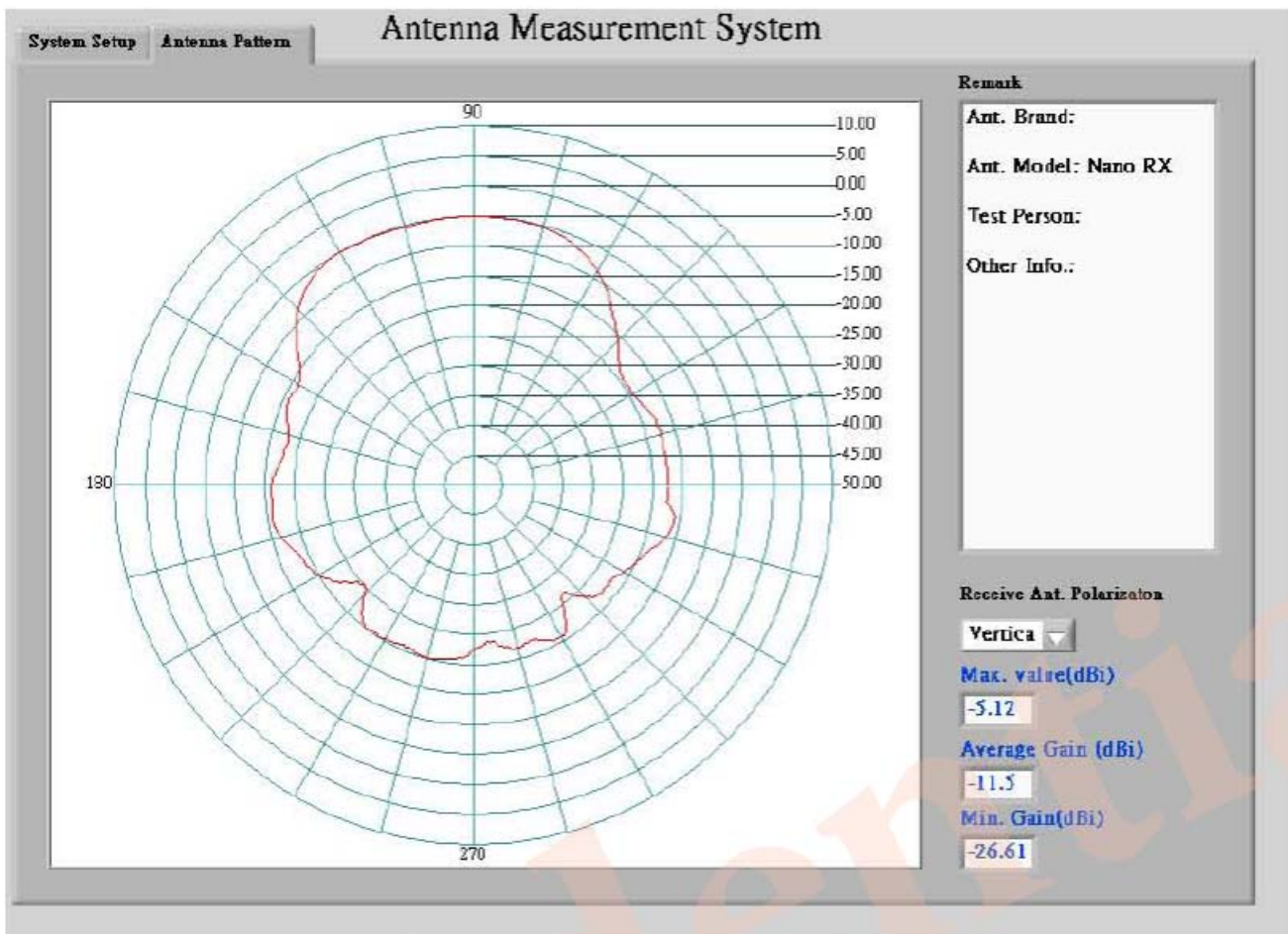
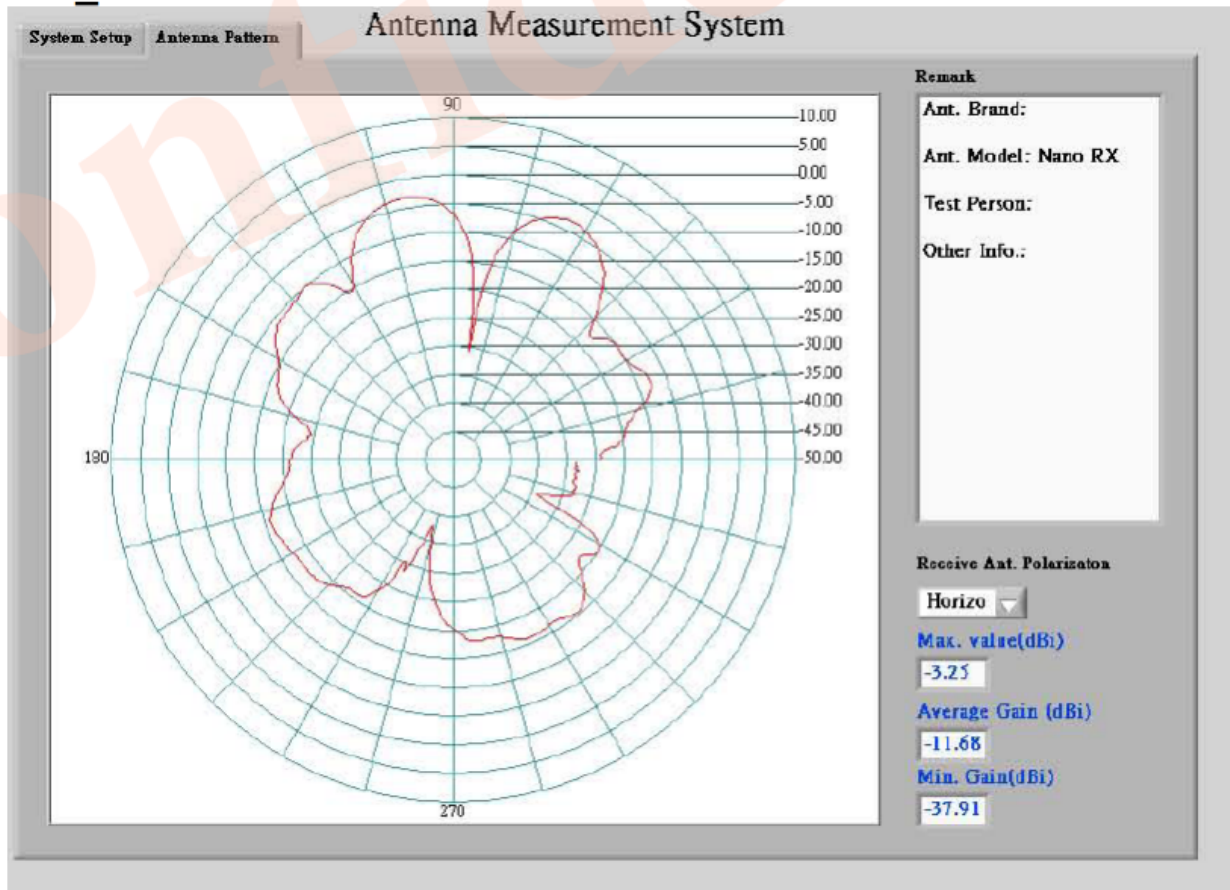
-17.19

Min. Gain(dBi)

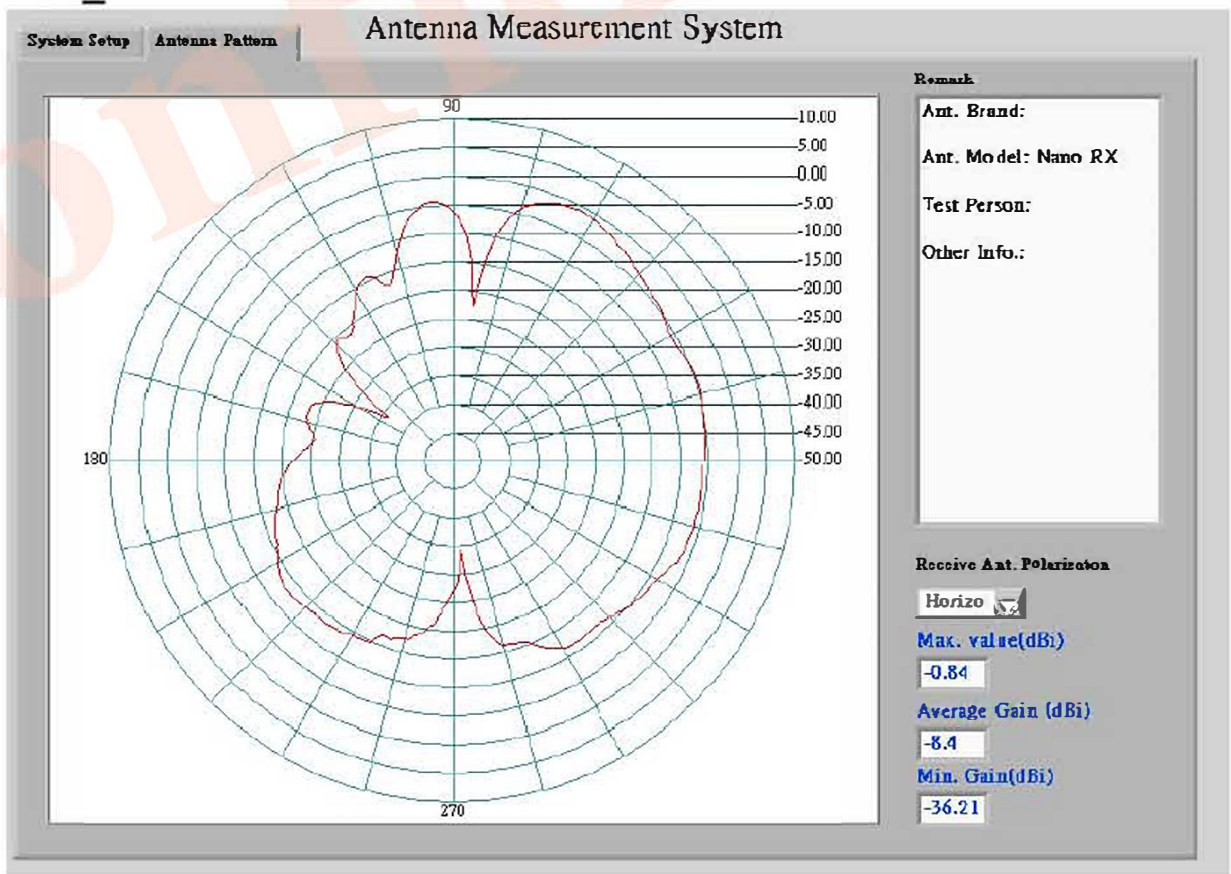
-55.15



# \* DUT\_Vertical

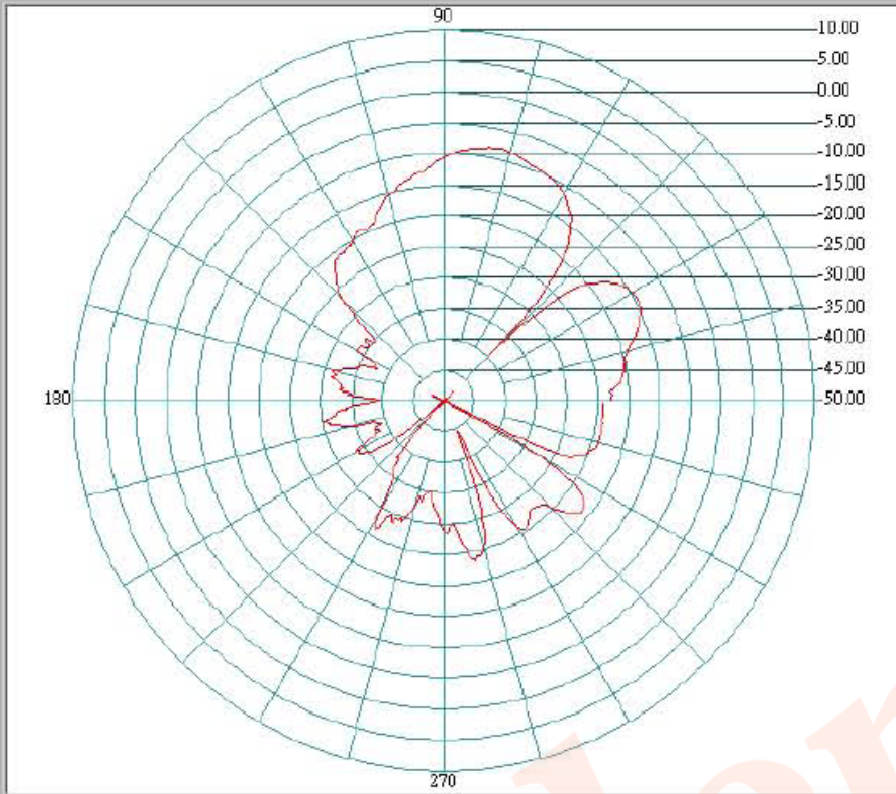


Center Frequency \_2446MHz  
\*DUT\_ Horizontal



# Antenna Measurement System

System Setup | Antenna Pattern



## Remark

Ant. Brand:

Ant. Model: Nano RX

Test Person:

Other Info.:

## Receive Ant. Polarization

Vertica

Max. value(dBi)

-8.3

Average Gain (dBi)

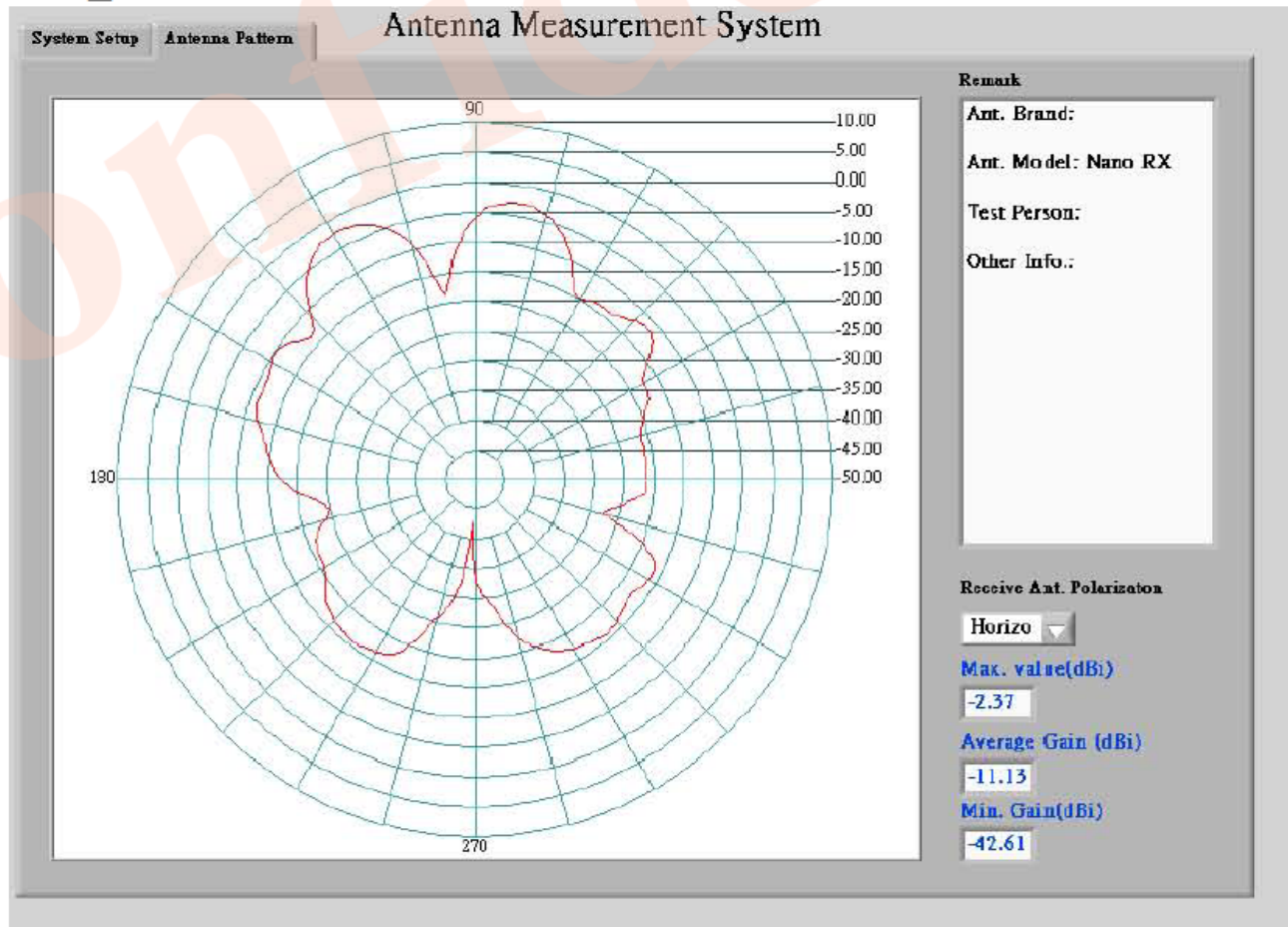
-17.74

Min. Gain(dBi)

-52.24



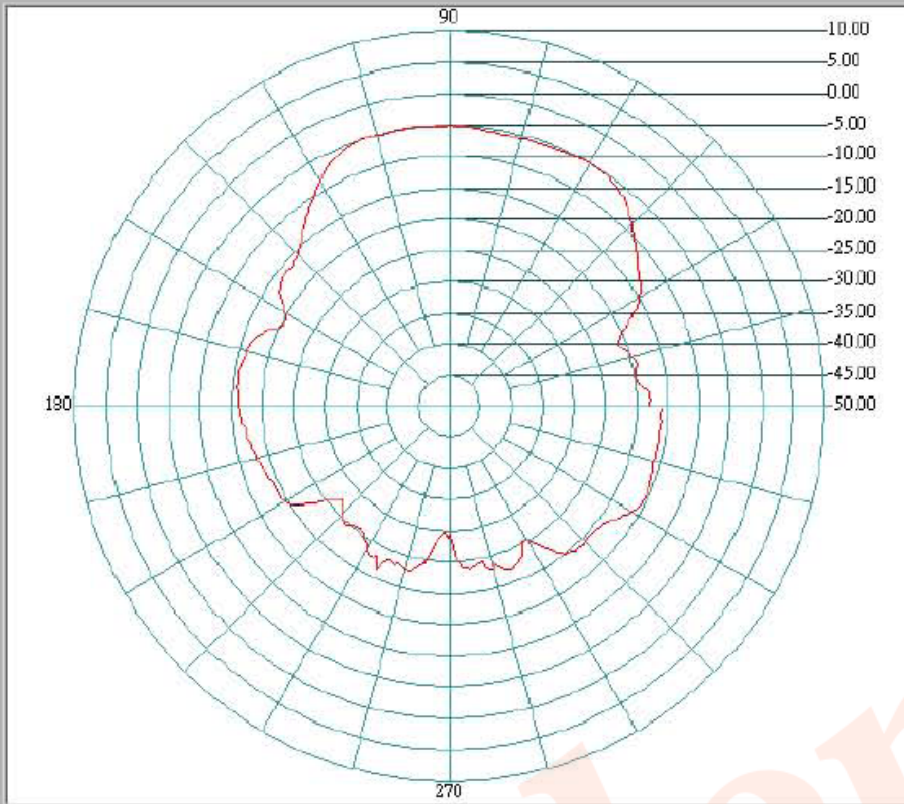
# \* DUT\_ Vertical



System Setup

Antenna Pattern

# Antenna Measurement System



Remark

Ant. Brand:

Ant. Model: Nano RX

Test Person:

Other Info.:

Receive Ant. Polarization

Vertica

Max. value(dBi)

-5.09

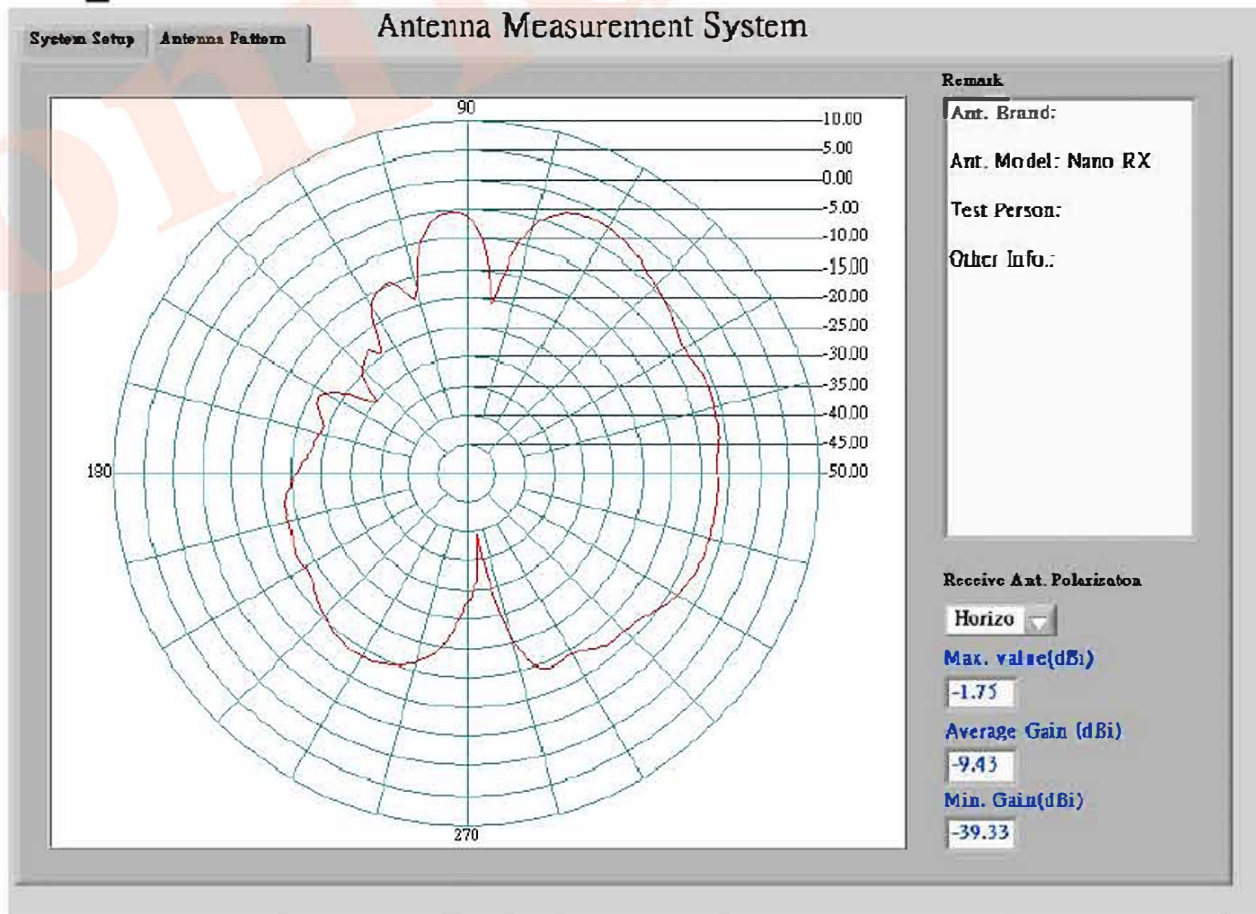
Average Gain (dBi)

-11.46

Min. Gain(dBi)

-29.87

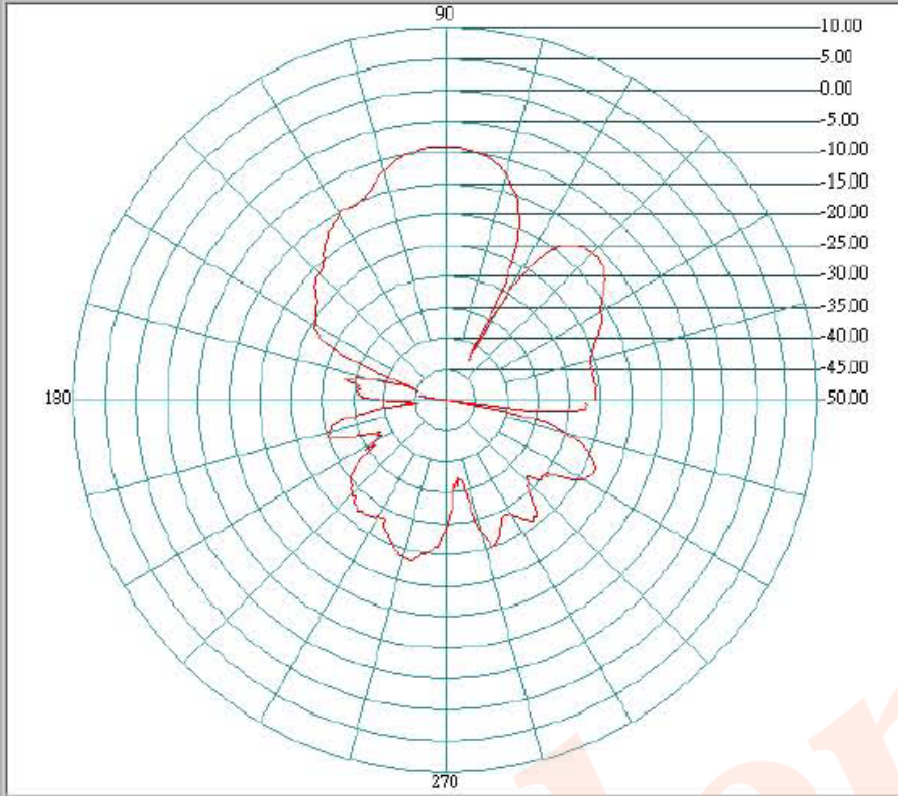
Center Frequency \_2479MHz  
\* DUT\_ Horizontal



System Setup

Antenna Pattern

# Antenna Measurement System



## Remark

Ant. Brand:

Ant. Model: Nano RX

Test Person:

Other Info.:

## Receive Ant. Polarization

Vertica

Max. value(dBi)

-9.14

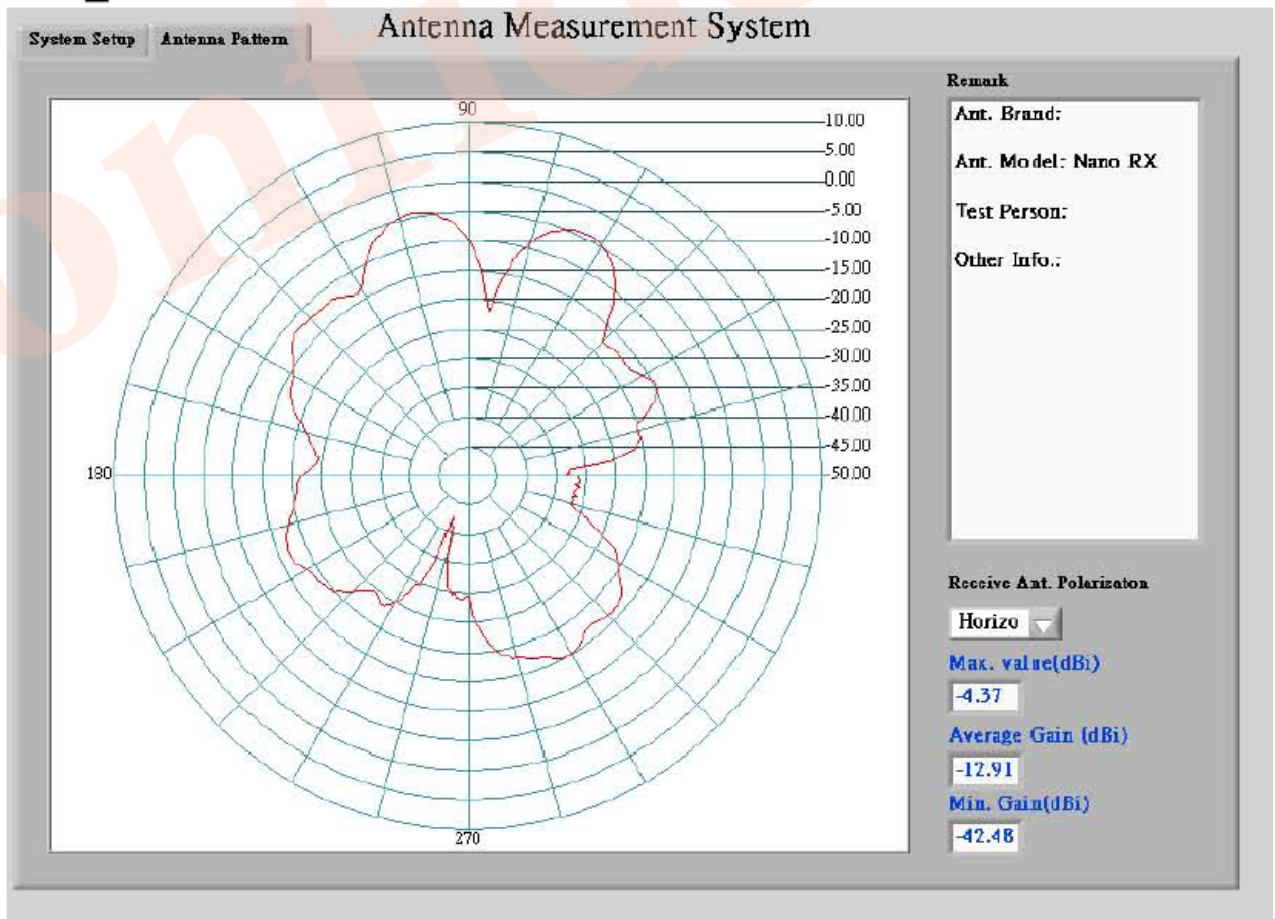
Average Gain (dBi)

-18.54

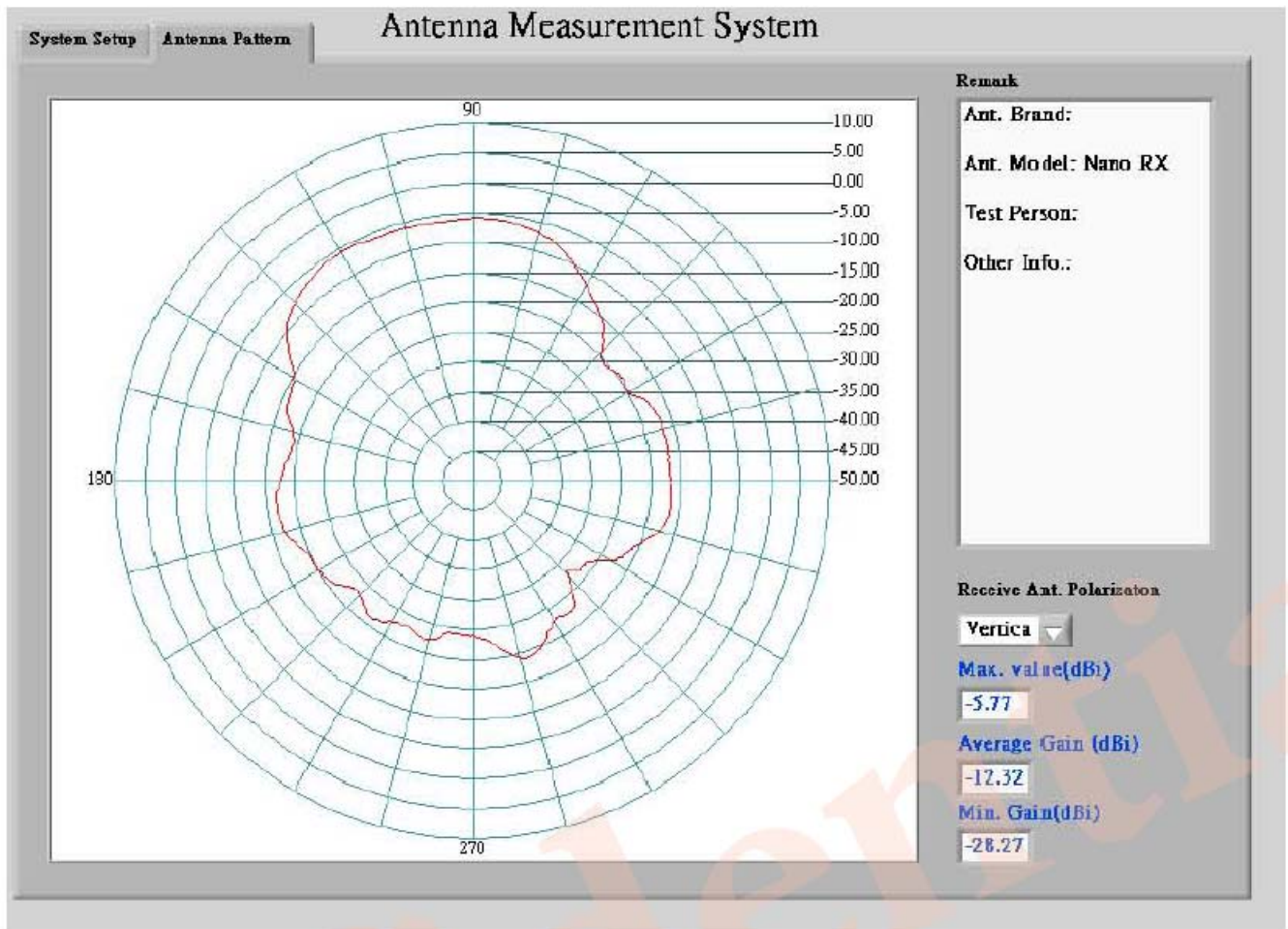
Min. Gain(dBi)

-54.11

# \* DUT\_ Vertical







## 5.結論

經由上面的綜合量測後可得知此款天線的增益確實只可達到-5dBi左右其最大的增益約在-0.71dBi.