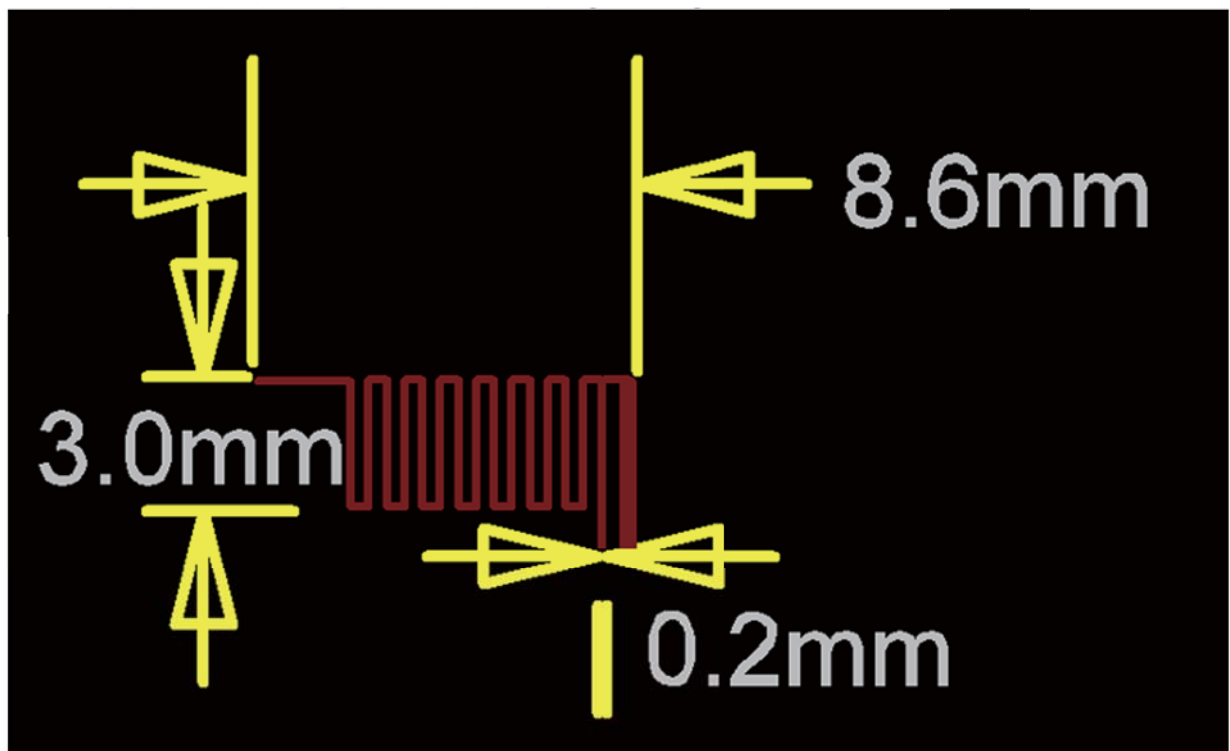


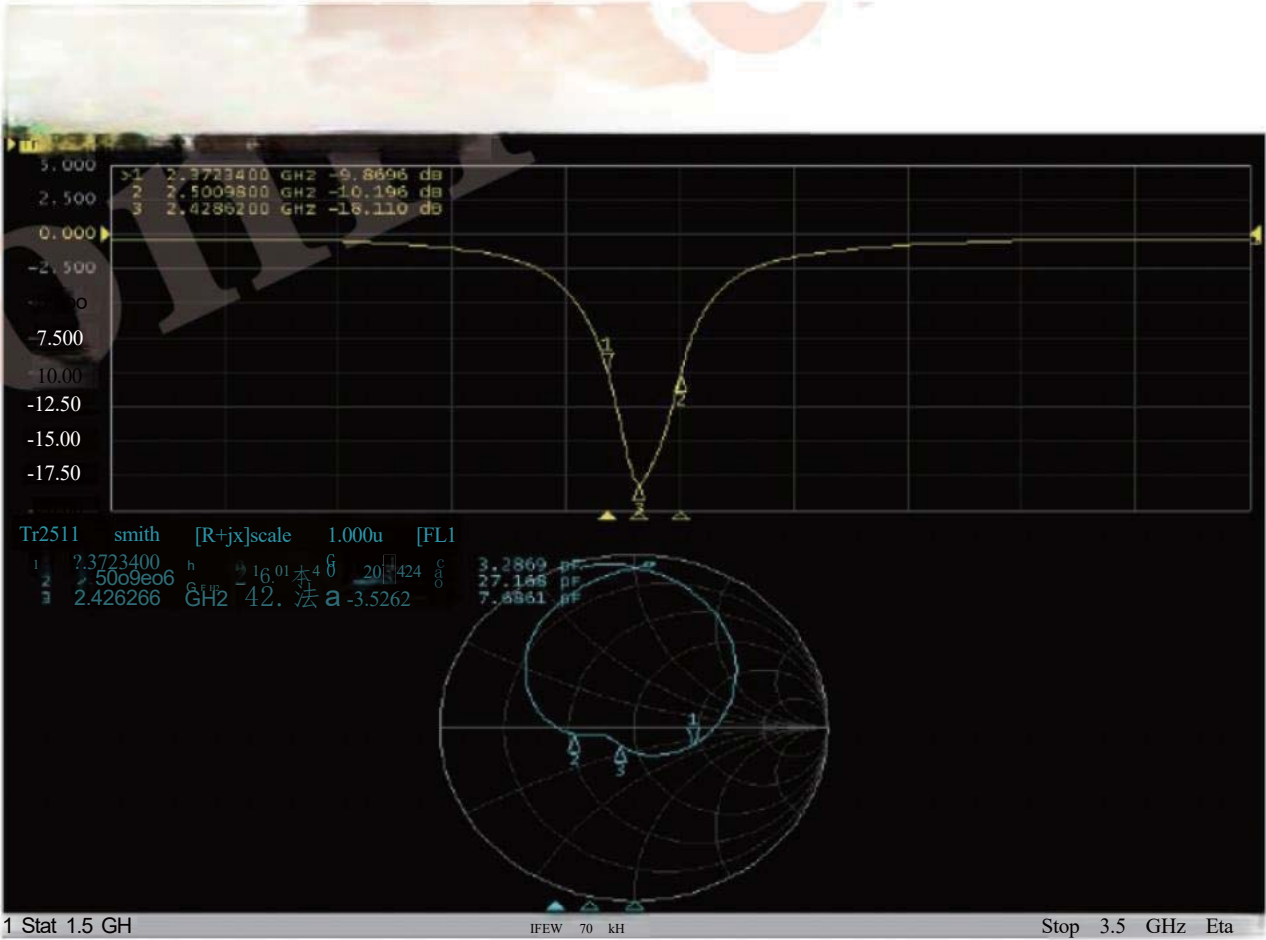
Type_3 Antenna Design Layout Guidelines & Pattern

1.The specific size specifications of the antenna are as follows (mm)



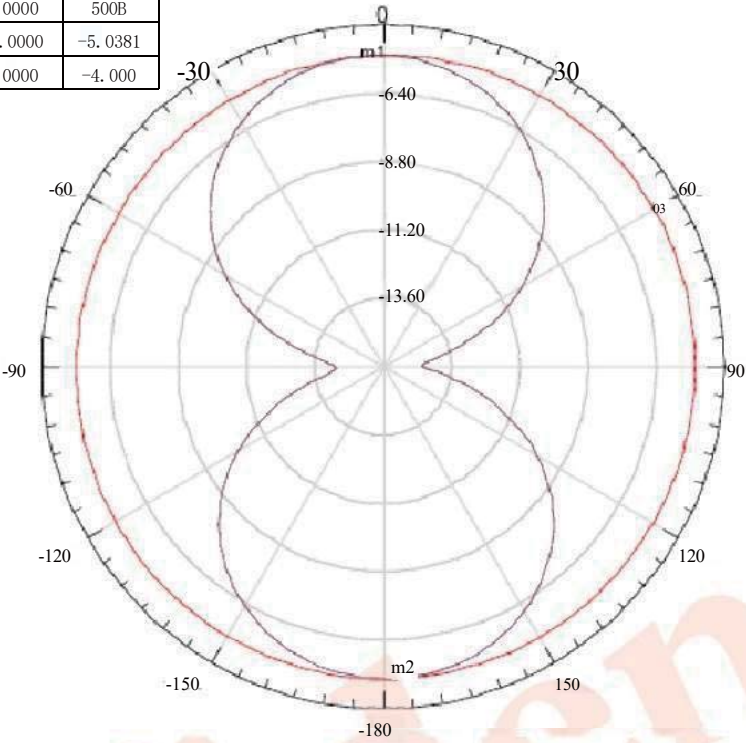
3. Antenna measurements and field simulation results are as follows: * Return Loss/standing wave ratio (VSWR) measurements:

s11 Log Hagr2.500dE/Raf o U0u [F]



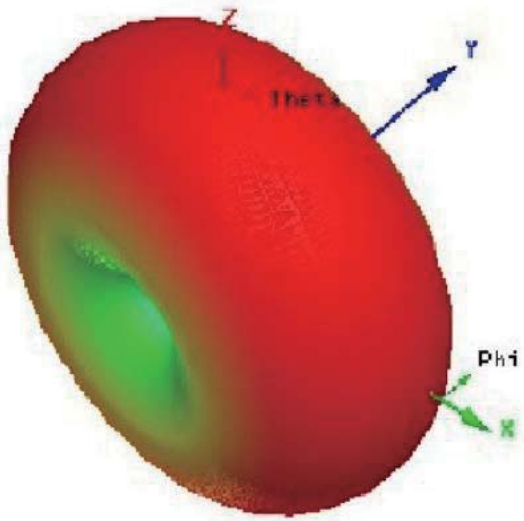
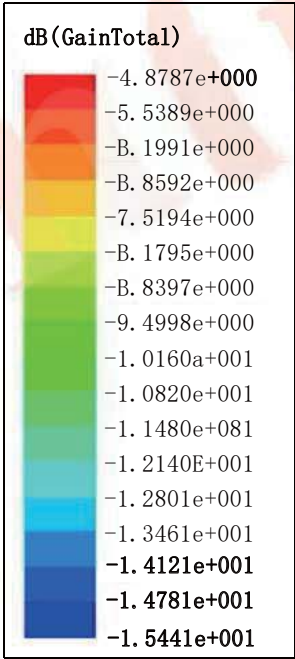
*2D field simulation:

Name	Theta	Ang	Mag
m1	-4.0000	-4.0000	500B
m2	178.0000	178.0000	-5.0381
m3	80.0000	80.0000	-4.000



CurveInfo
— dB(GainTotal)
Setup1 : Sweep1
Phi=' Cdeg'
— dB(GainTotal)
Setup1 : Sweep1
Phi=' 90deg'

*3D simulation:



(figure 5)

The gain of this antenna can only reach about -5 dbi after the measurement and simulation above.

4.The actual shape (strength) of the antenna is tested as follows:

Summary

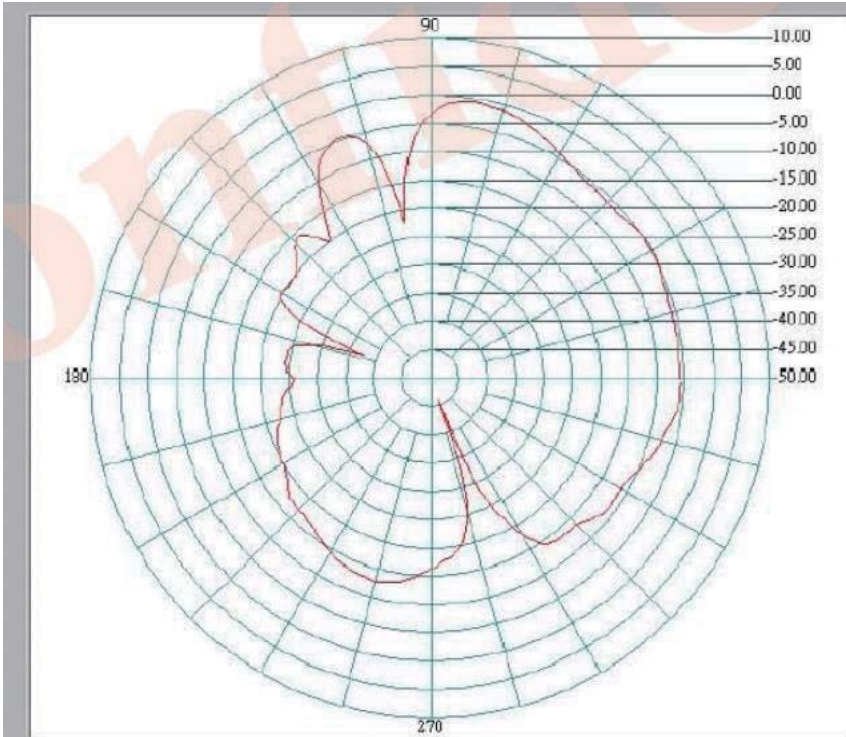
ITEM	SPEC.	
Antenna Designation	PCB Antenna	
Center Frequency	2400 MHz	-0.71 dBi
	2450 MHz	-0.84 dBi
	2500 MHz	-1.75 dBi
Max. GAIN	-0.71 dBi	
Mini. GAIN	-55.15 dBi	
AVG GAIN	-8.4 dBi	
DUT Polarization	Horizontal &Vertical	
TEST Output Power Level	10dBm	
Impedance	50 Ω	

(表一)

Center Frequency_2400MHz
*DUT_Horizontal

System Setup Antenna Patten

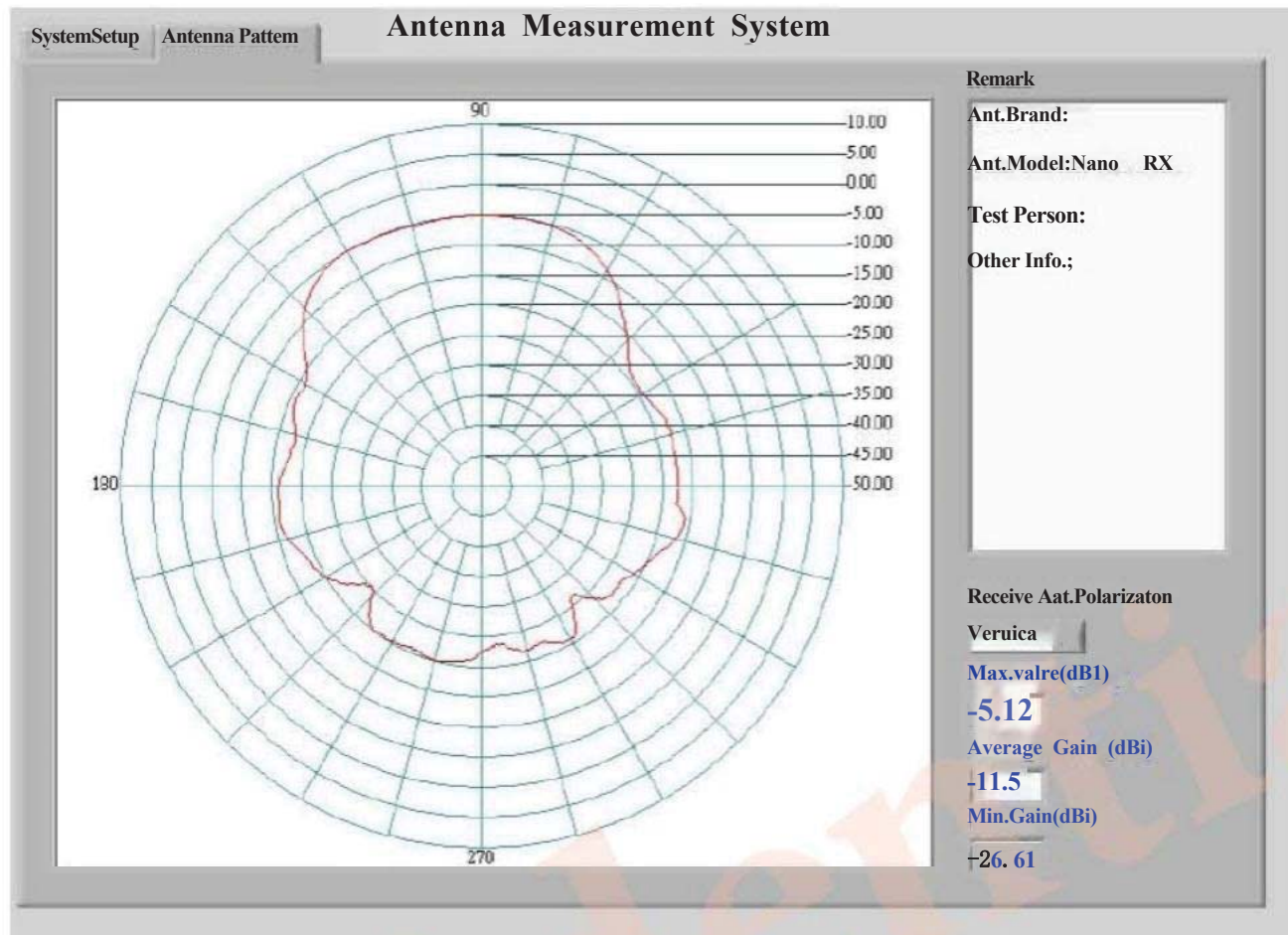
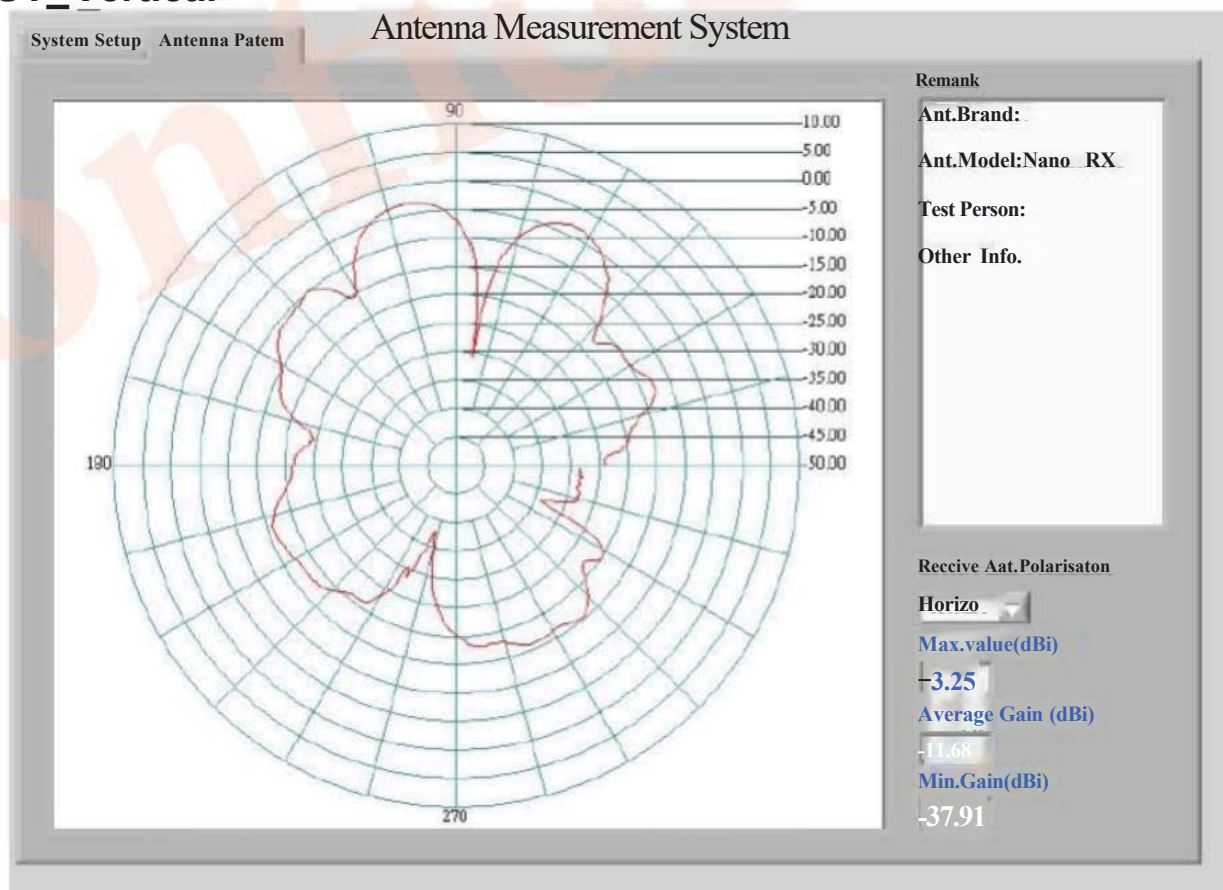
Antenna Measurement System



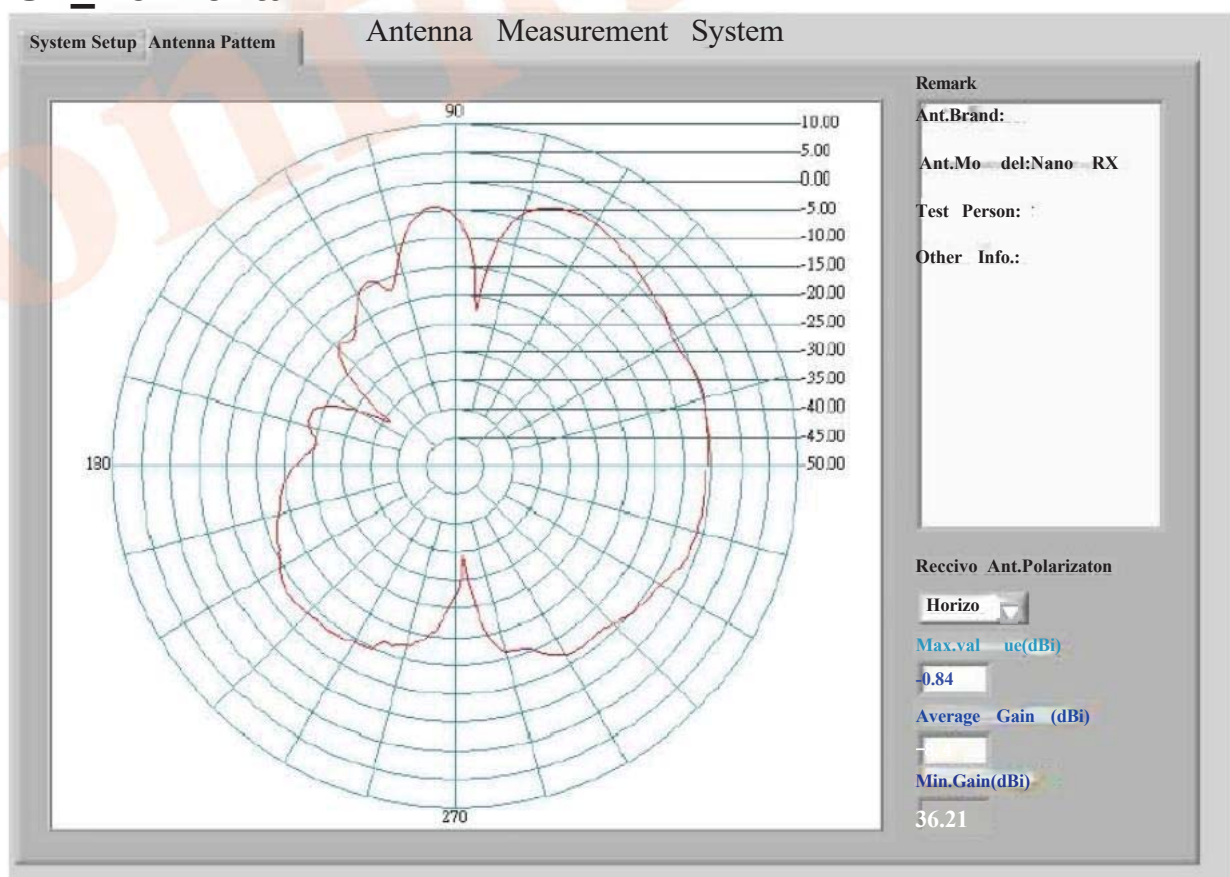
Remak
Ant.Brand:
Ant.Mo del:Nano RX
Test Person:
Other Info.

Roccive Aat.Polarisaton
Horizo -
Max.wal re(dBi)
-0.71
Average Gain (dBi)
-8.41
Min.Gain(dBi)
-46.09

*DUT_Vertical

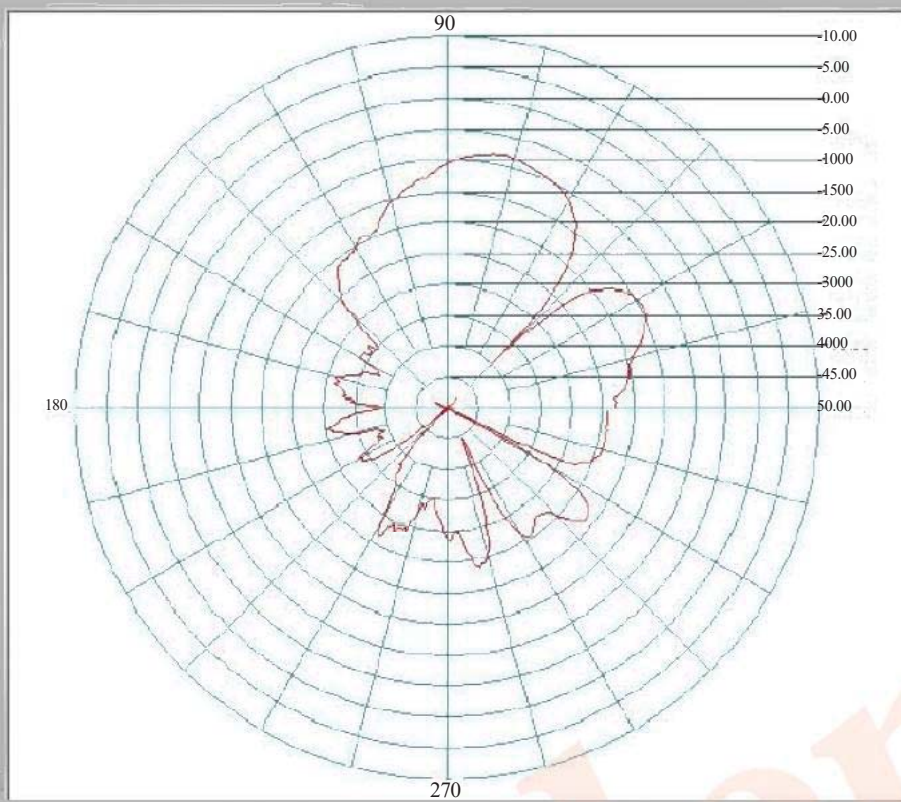


Center Frequency_2450MHz
*DUT_Horizontal



System Setup Antenna Patten

Antenna Measurement System



Remark

Ant.Brand:

Ant.Model:Nano RX

Test Person:

Other Info.:

Reccive Ant.Polorizaton

Yeruica

Max.valie(dBi)

-8.3

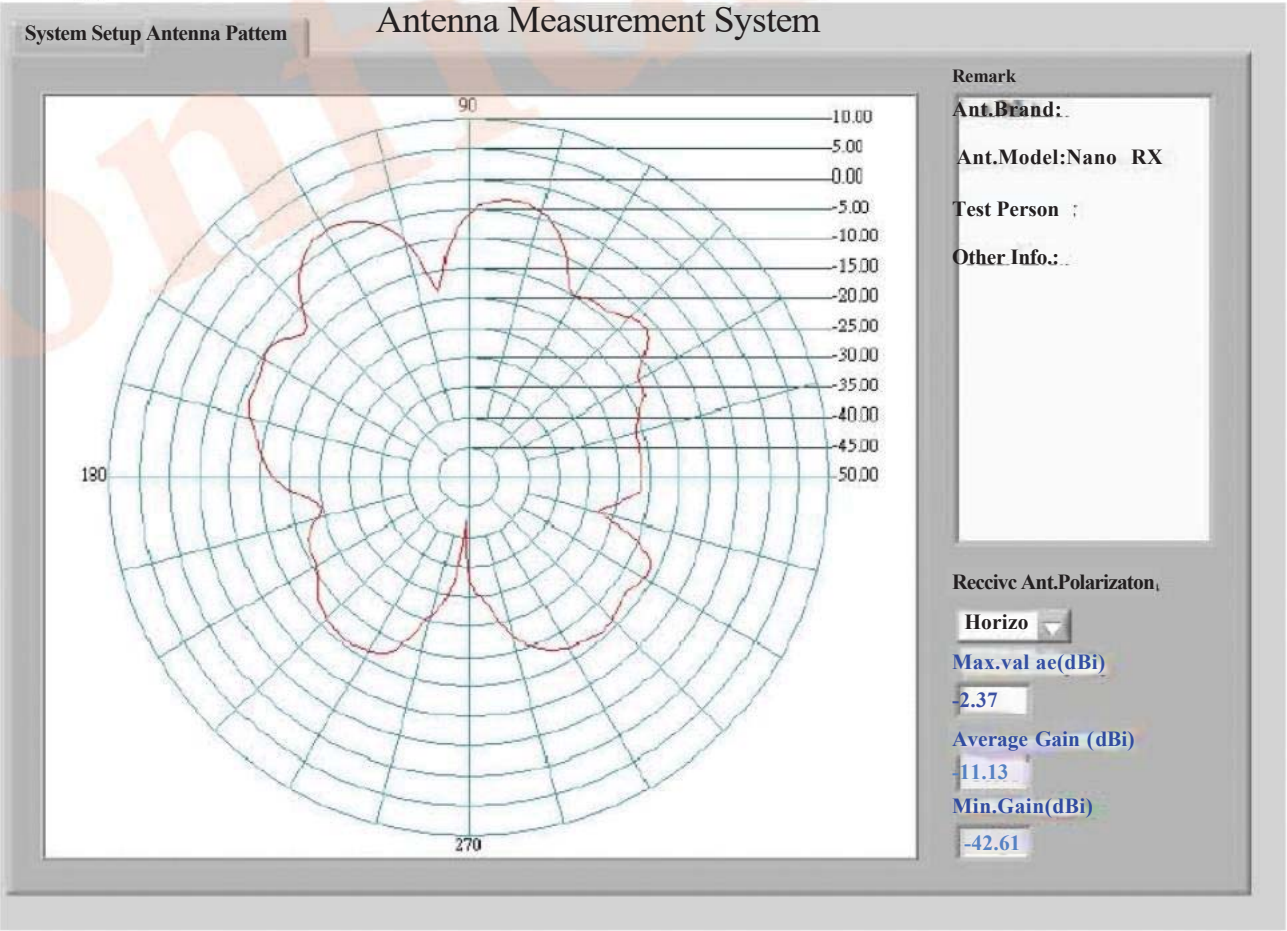
Average Gain (dBi)

-17.74

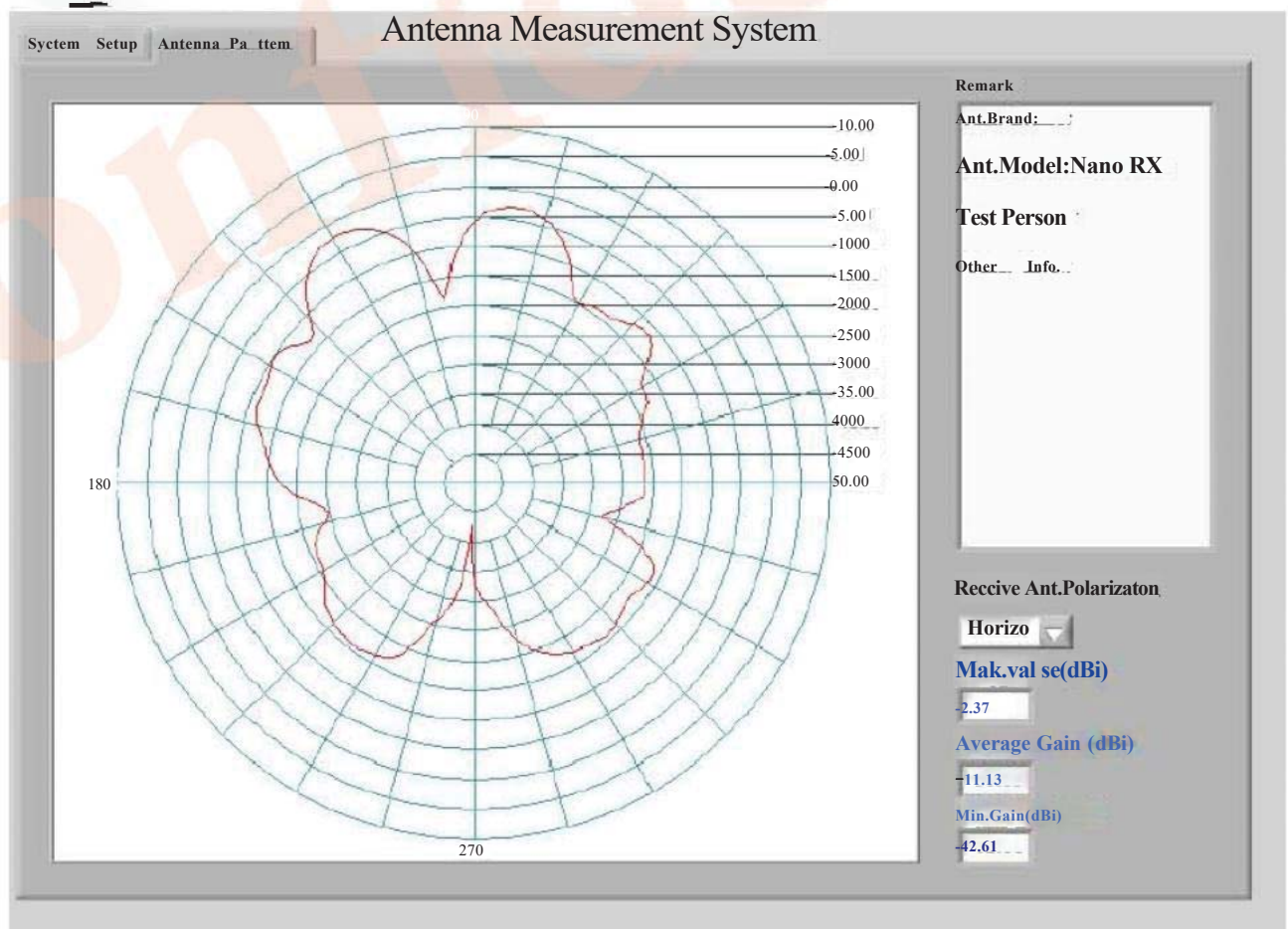
Min.Gain(dBi)

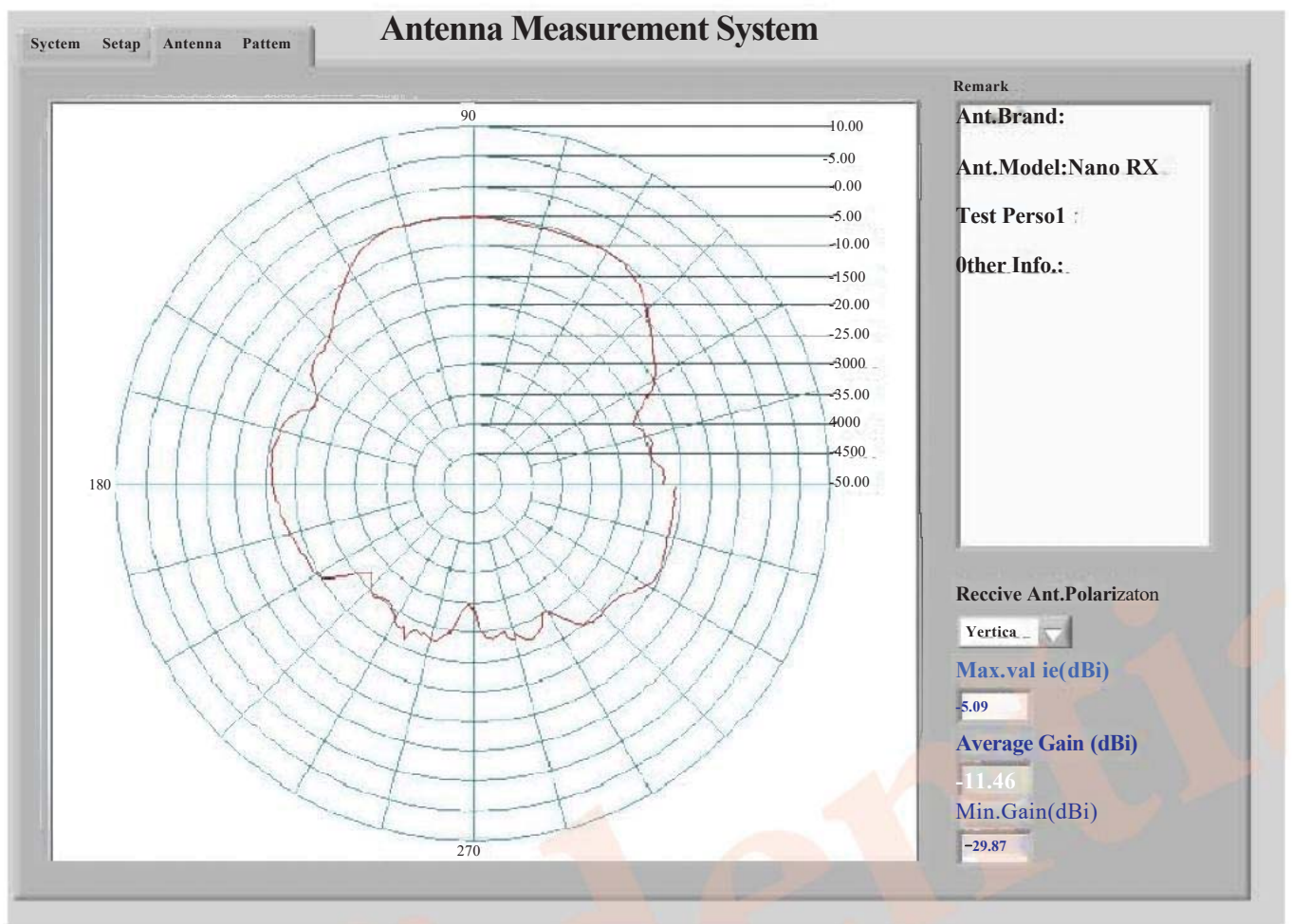
-52.24

*DUT_Vertical

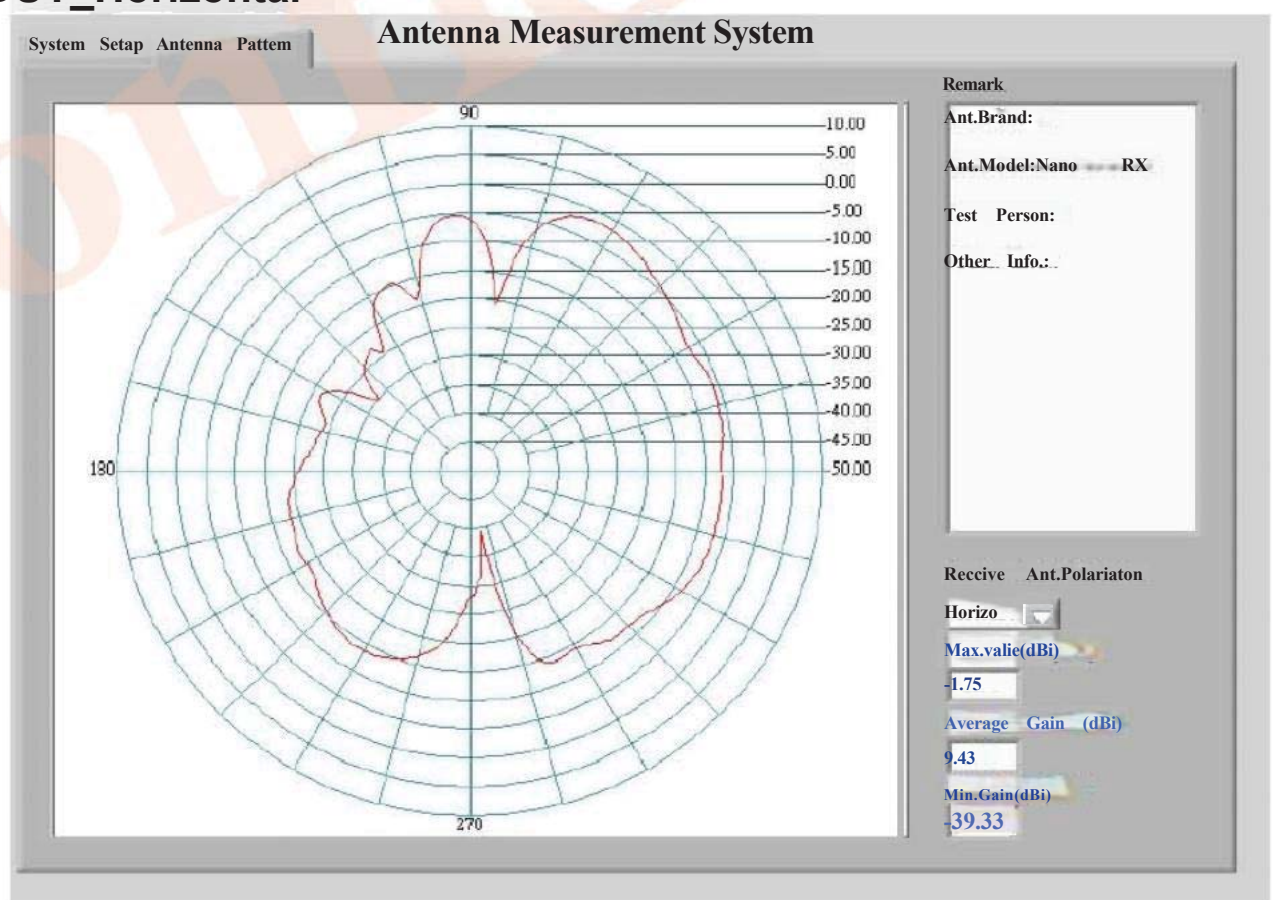


***DUT_Vertical**



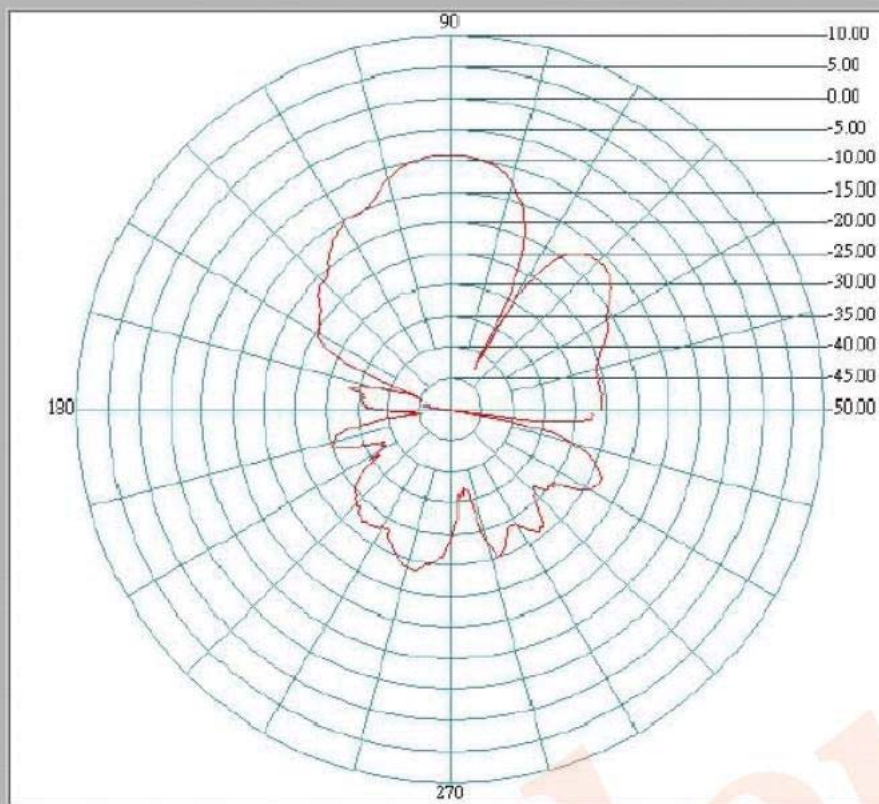


Center Frequency_2500MHz
*DUT_Horizontal



System Setup Antenna Pattern

Antenna Measurement System



Remark

Ant.Brand:

Ant.Model: Nano RX

Test Person:

Other Info.:

Receive Ant.Polarization

Yeruica

Max.value(dBi)

-9.14

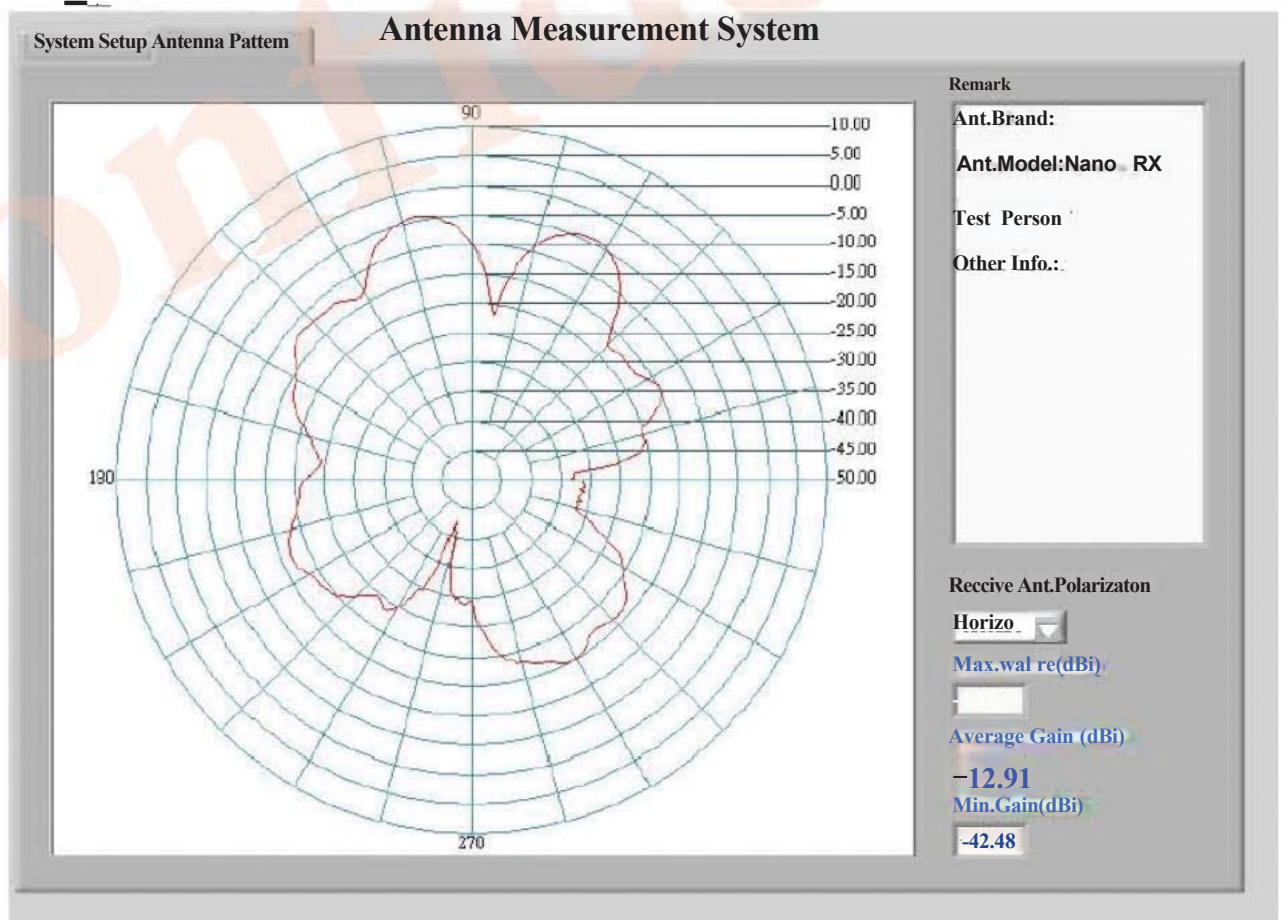
Average Gain(dBi)

-18.34

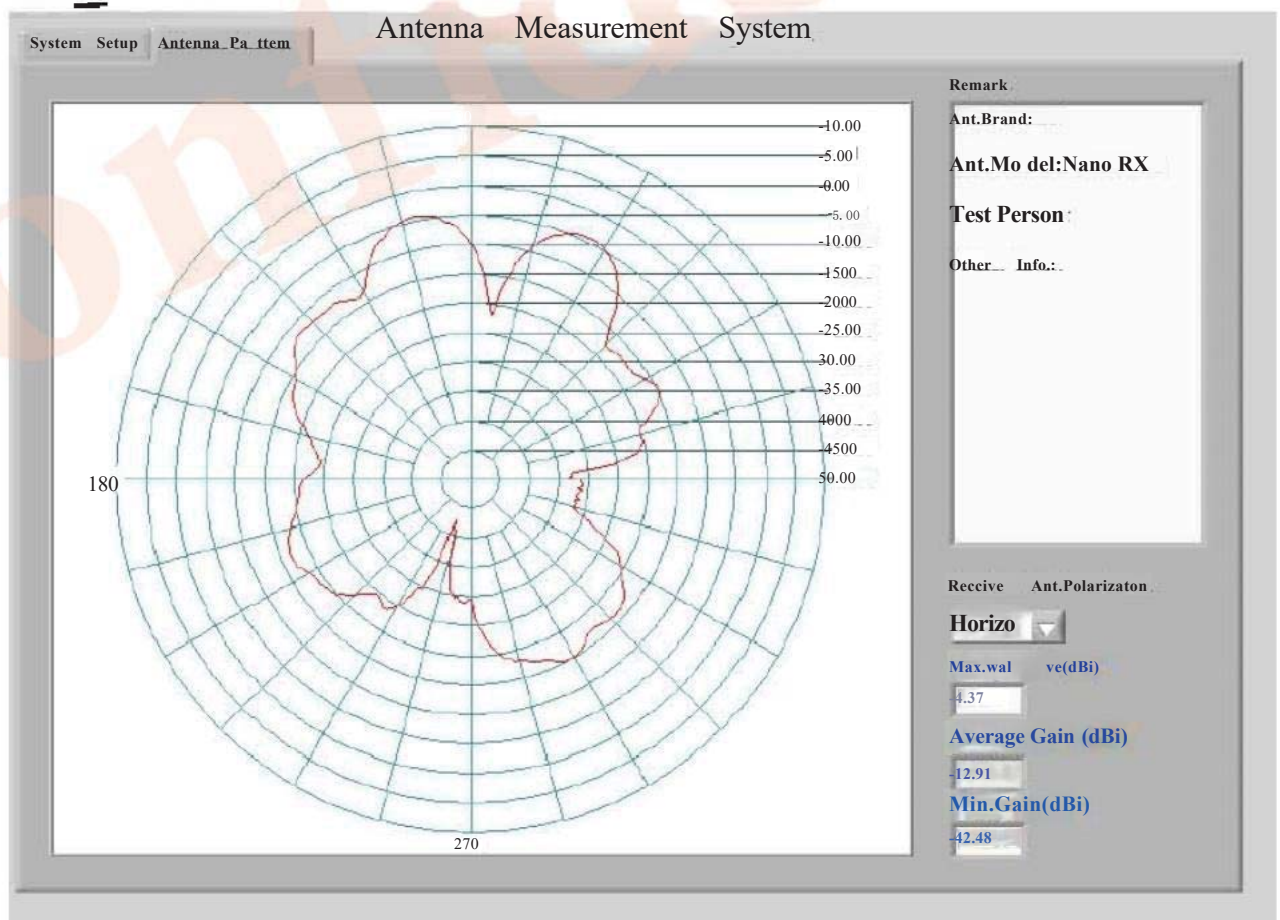
Min.Gain(dBi)

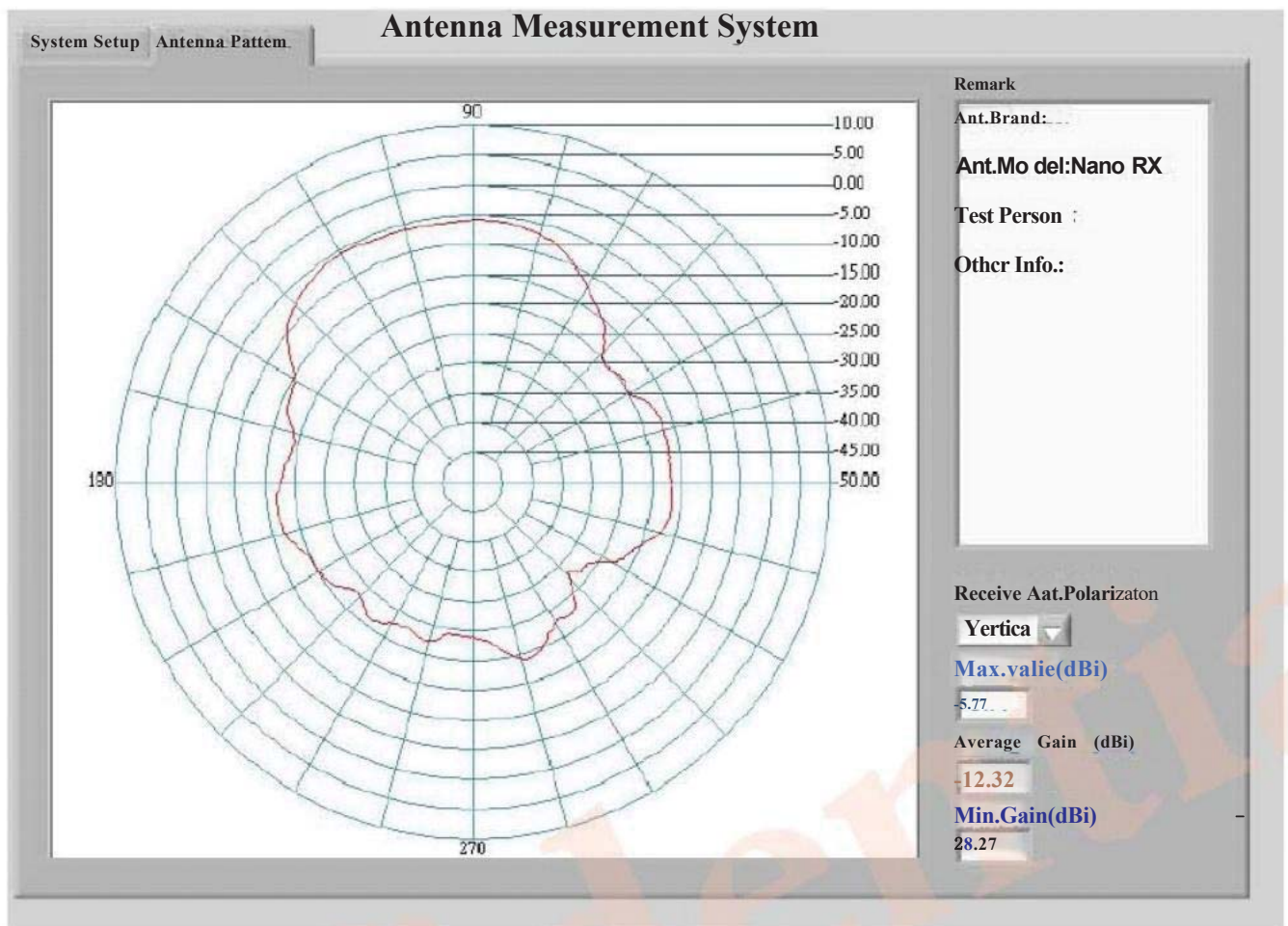
-54.11

***DUT_Vertical**



*DUT_Vertical





5. Conclusion

the gain of the antenna can only reach about -5 dBi, and the maximum gain is about -0.71 dBi.