RF Antenna Assembly

Specification

1. Electrical Properties :

1.1 Frequency Range……2.4~ 2.5GHz ;4.9~5.9GHz

1.2 Impedance ……50Ω Nominal

1.3 VSWR ……1.92 :1Max.

1.4 Return Loss……-10 dB Max.

1.5 Radiation ……Omni-directional

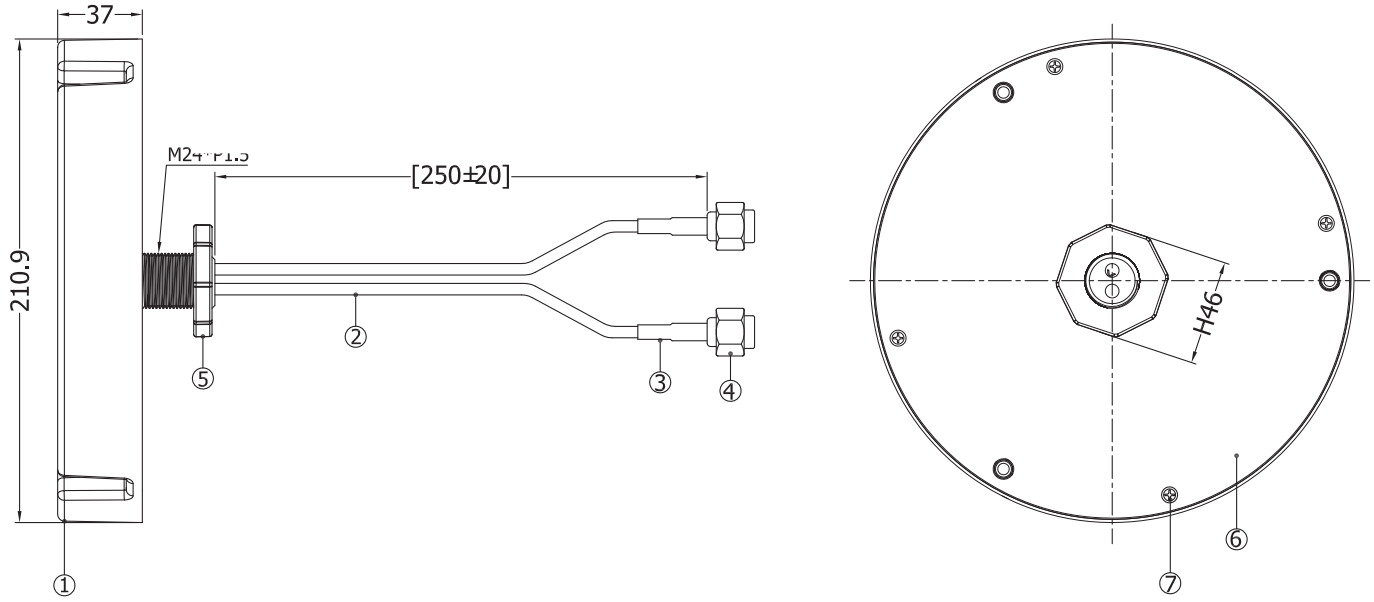
1.6 Gain(peak)……..……2±0.5dBi @ 2.4GHz ~ 2.5GHz

5±1.0dBi @ 4.9GHz ~ 5.9GHz

1.7 Polarization……Linearl

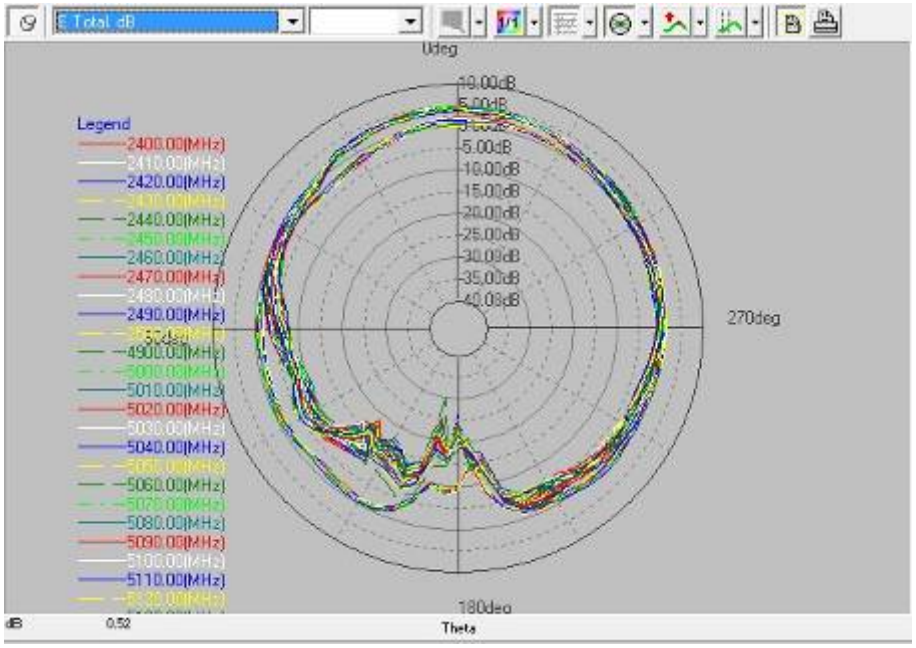
1.8 Cable……RG-178 Coaxial Cable

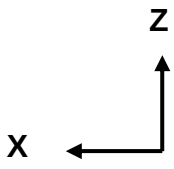
1.9 Connector…...……SMA Plug Reverse



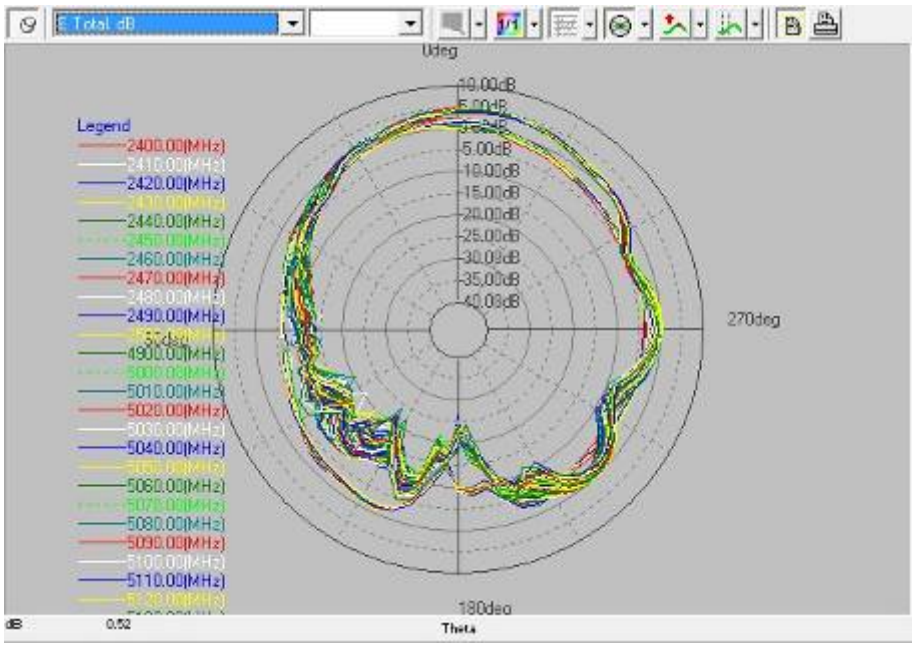
4.2 2D patterns

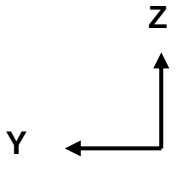
4.2.1 Ant 1



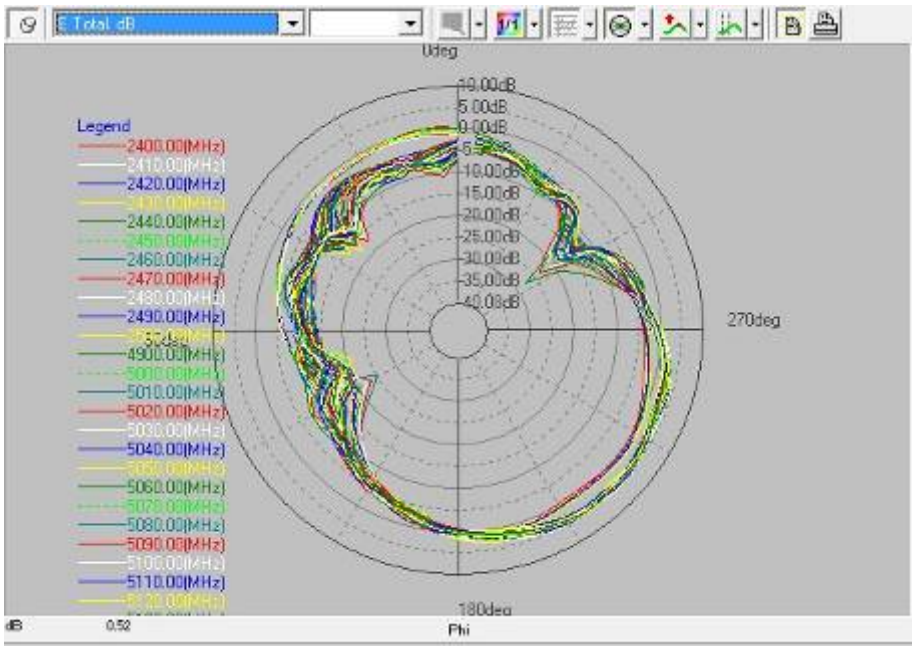


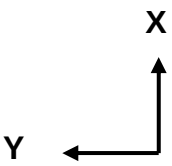
X-Z Plane





Y-Z Plane

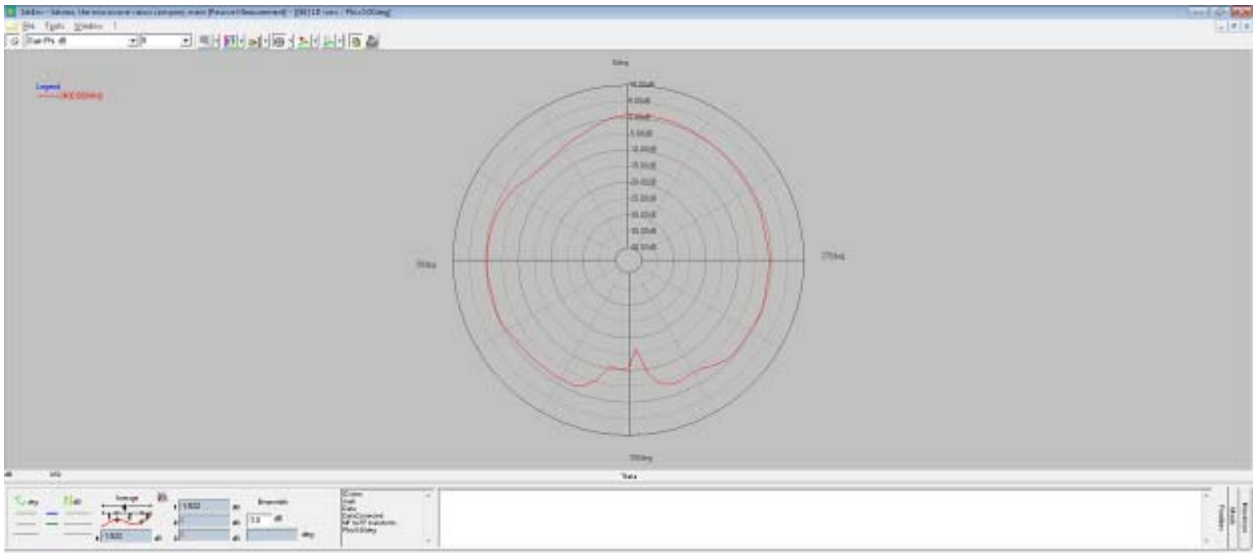

E Total dB
Udeg
Legend
2400.00(MHz)
2410.00(MHz)
2420.00(MHz)
2440.00(MHz)
2460.00(MHz)
2470.00(MHz)
2490.00(MHz)
4900.00(MHz)
5010.00(MHz)
5020.00(MHz)
5040.00(MHz)
5060.00(MHz)
5080.00(MHz)
5090.00(MHz)
5110.00(MHz)
-10.00dB
-5.00dB
0.00dB
-10.00dB
-15.00dB
-20.00dB
-25.00dB
-30.00dB
-35.00dB
-40.00dB
270deg
180deg
dB
0.52
Phi


X
Y

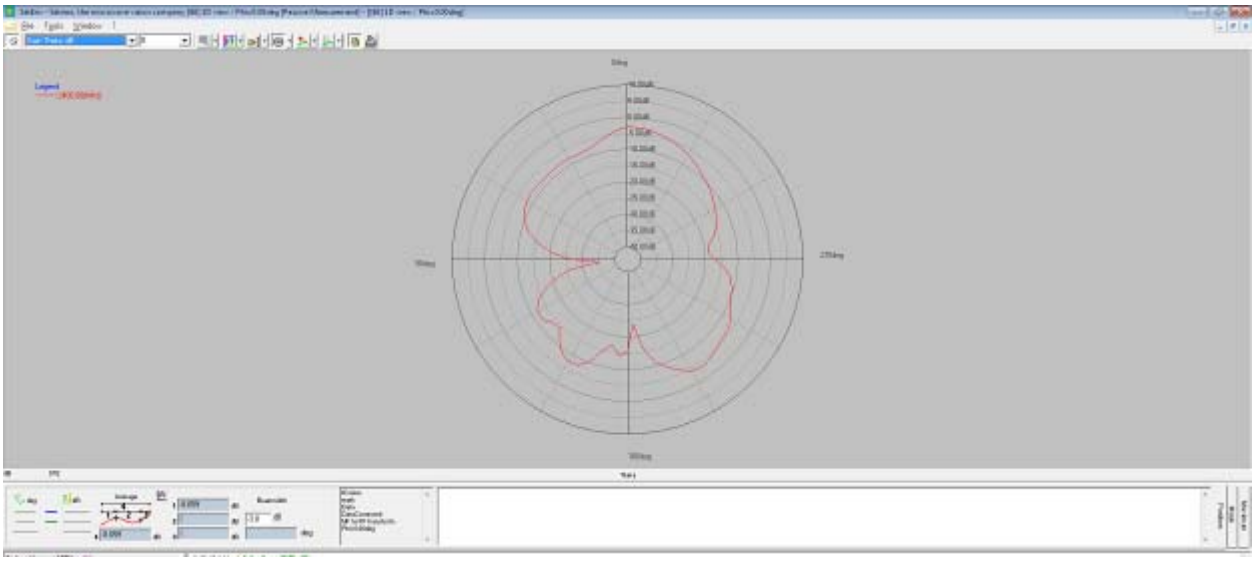
X-Y Plane

4.3 co port & cross port-Ant1

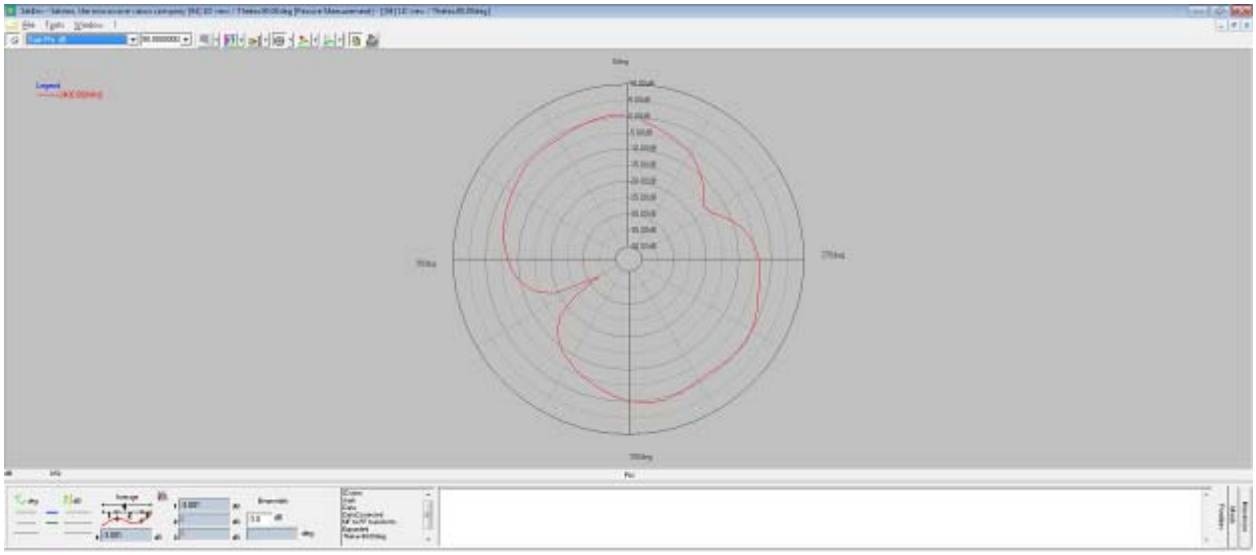
4.3.1 2400MHz



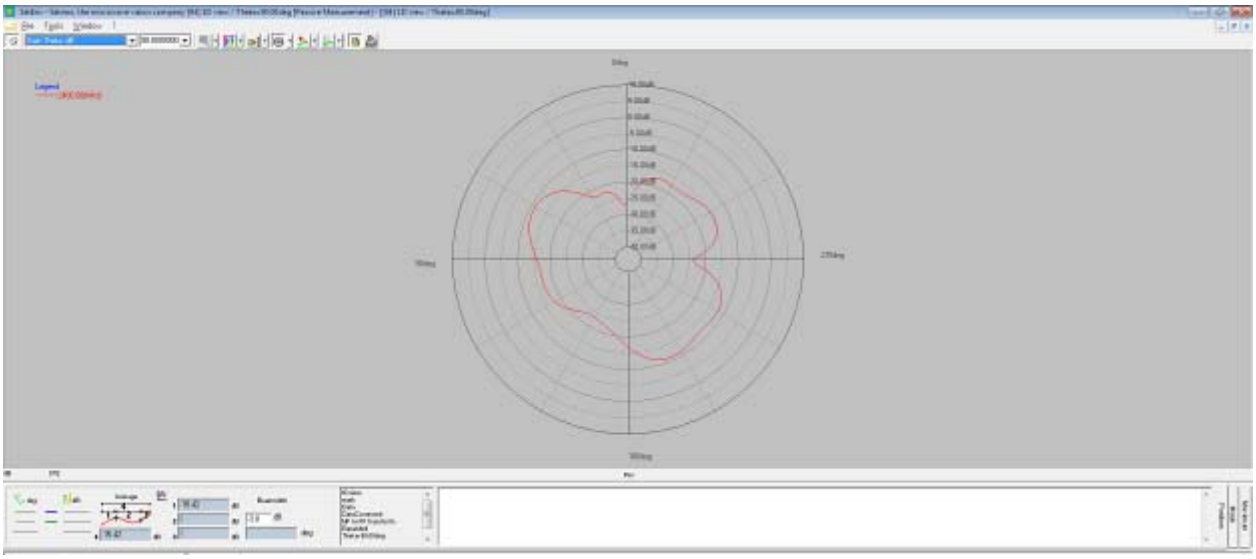
XZ-Phi



XZ-Theta

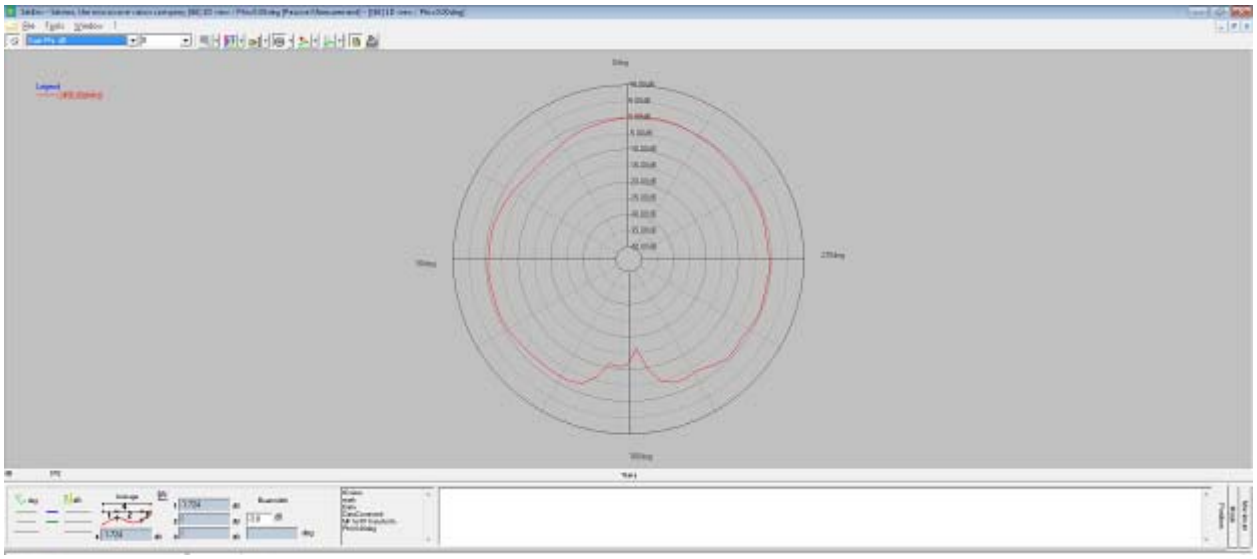


XY-Phi

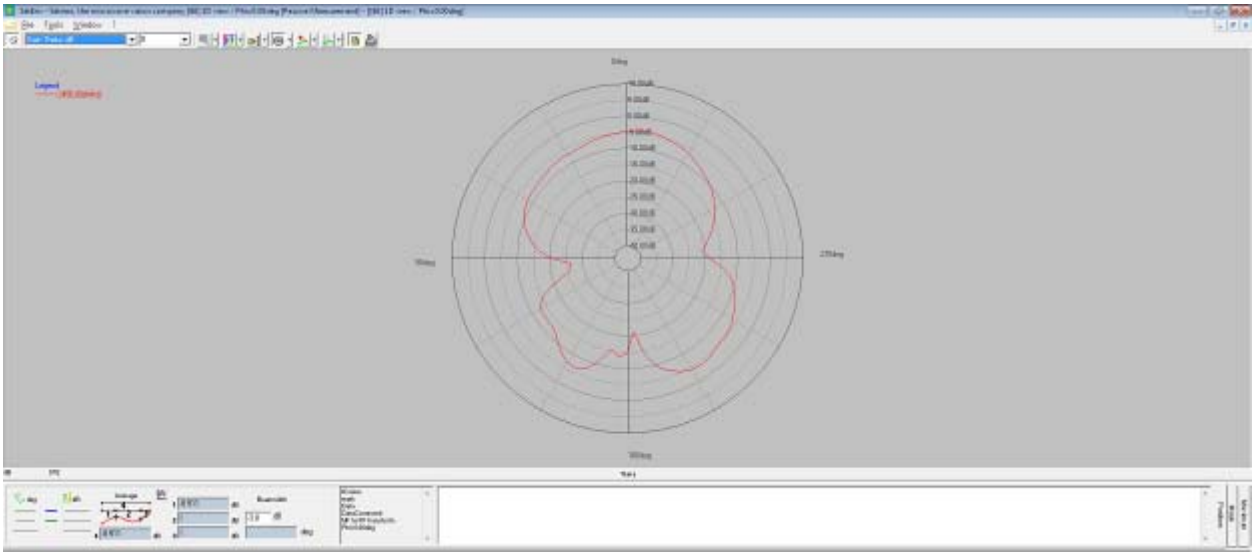


XY-Theta

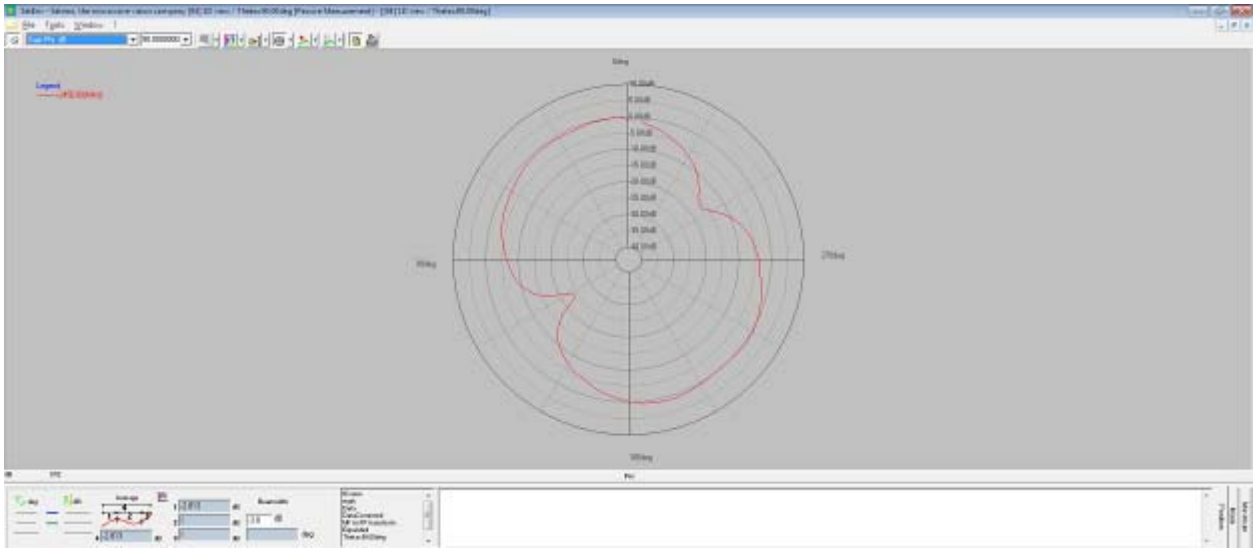
4.3.2 2450MHz



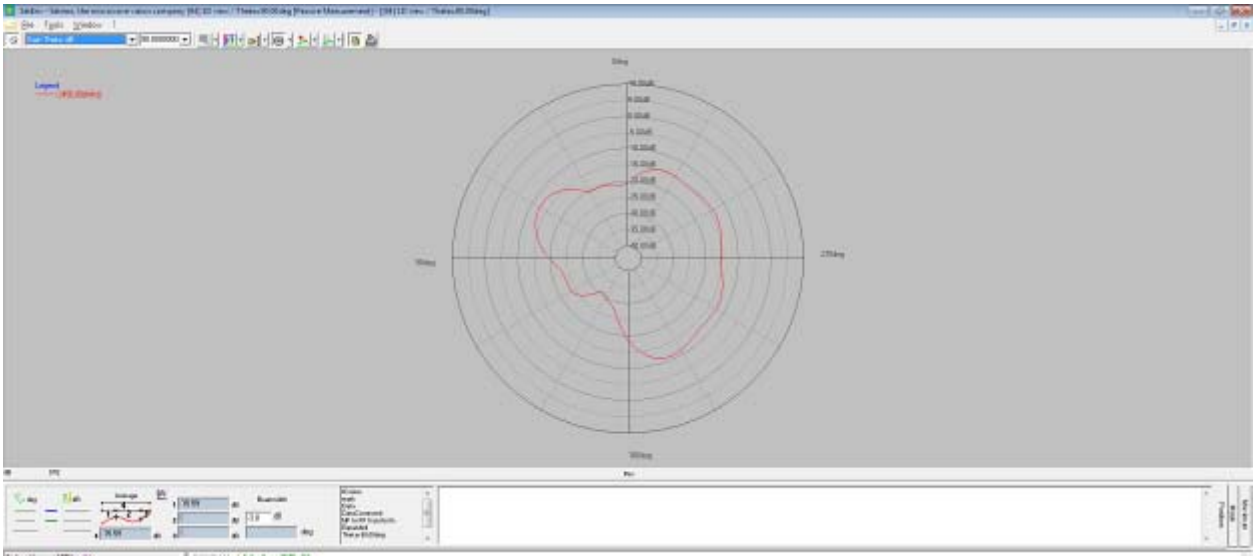
XZ-Phi



XZ-Theta

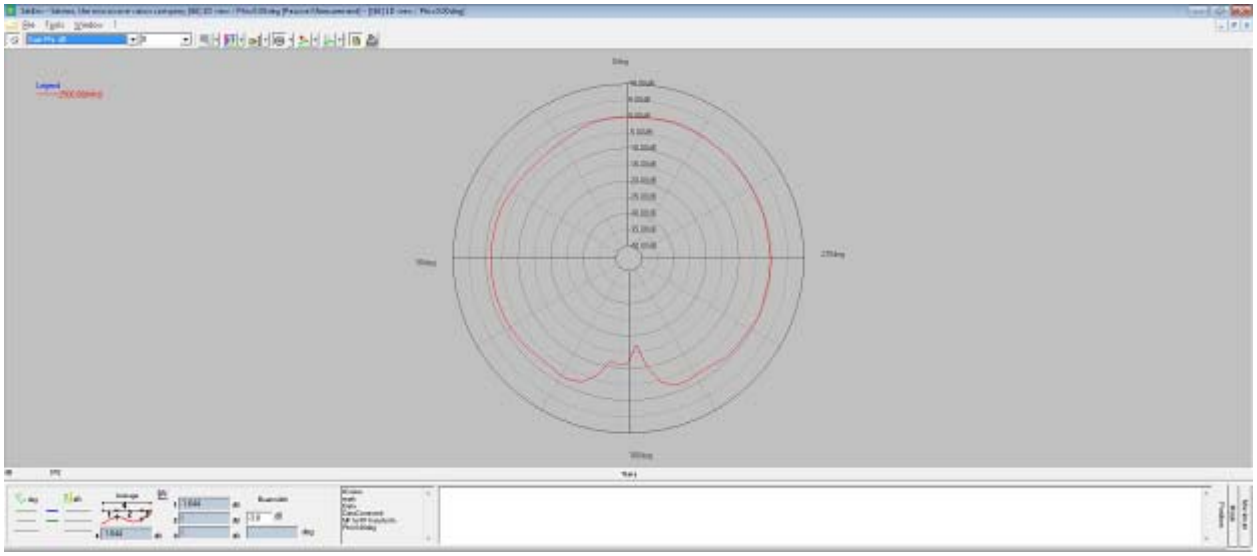


XY-Phi

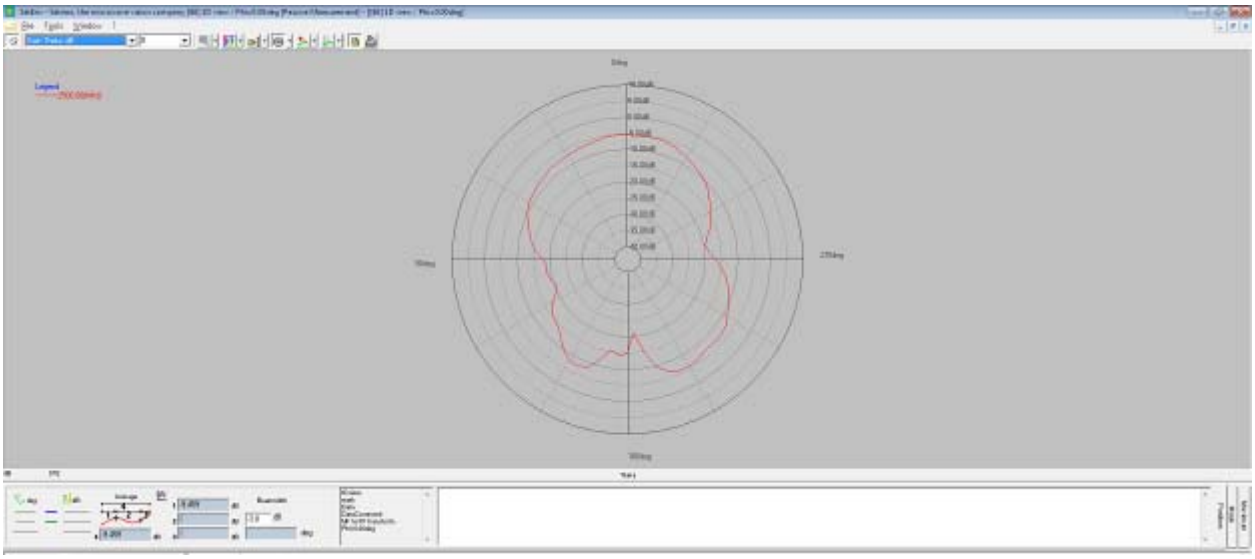


XY-Theta

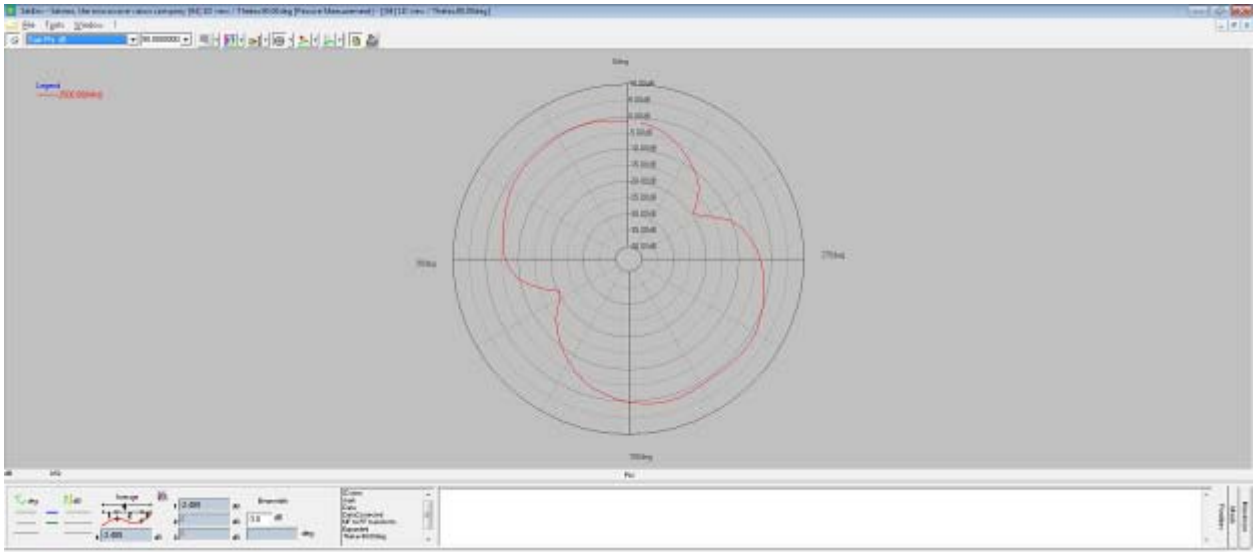
4.3.3 2500MHz



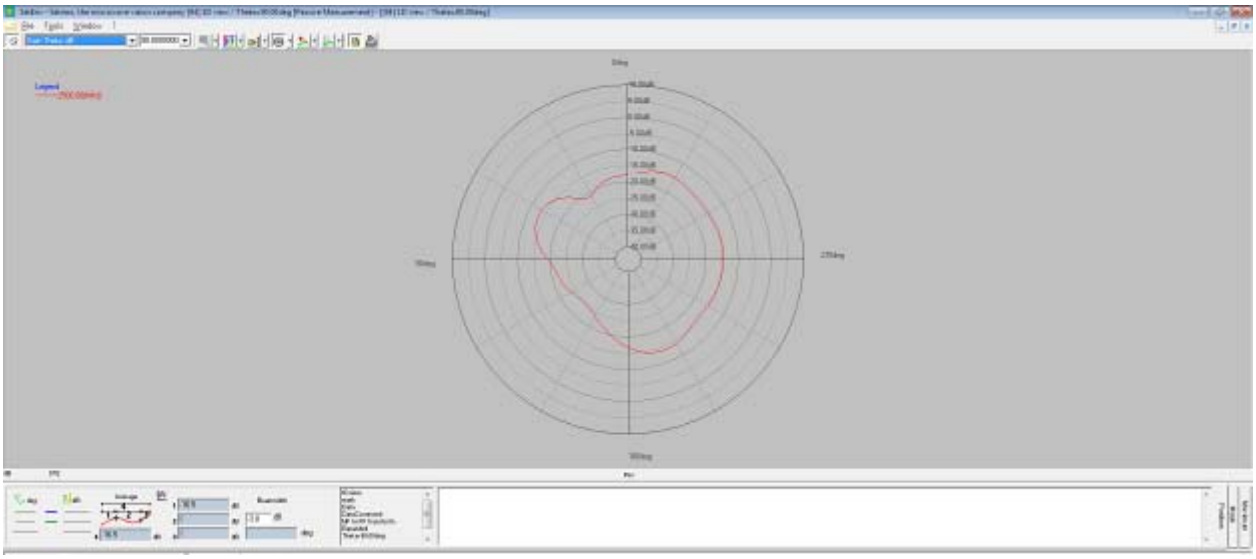
XZ-Phi



XZ-Theta

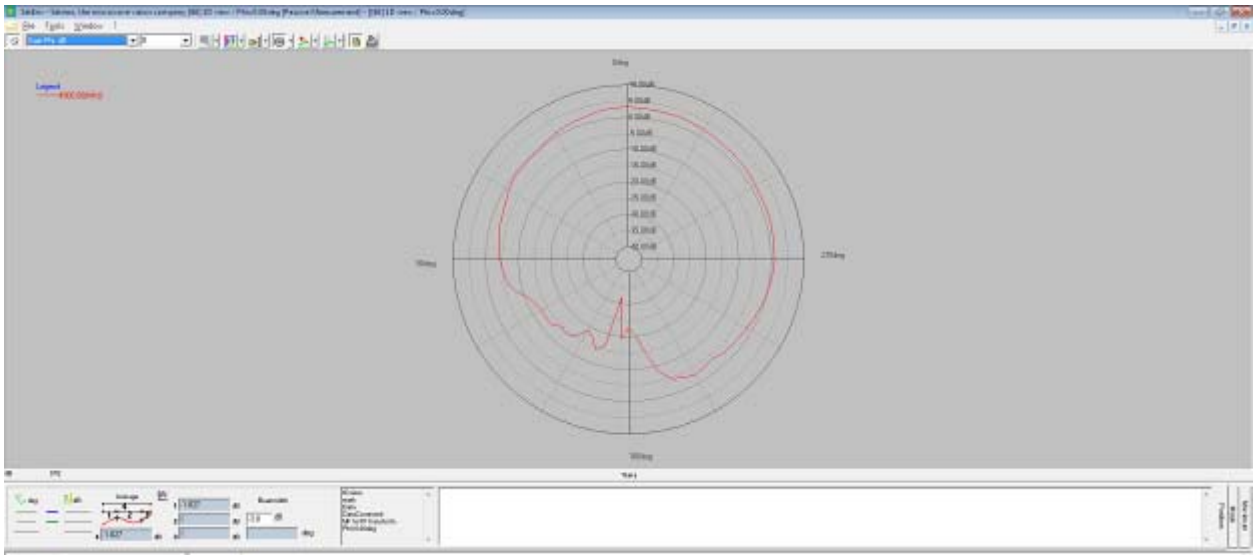


XY-Phi



XY-Theta

4.3.4 4900MHz



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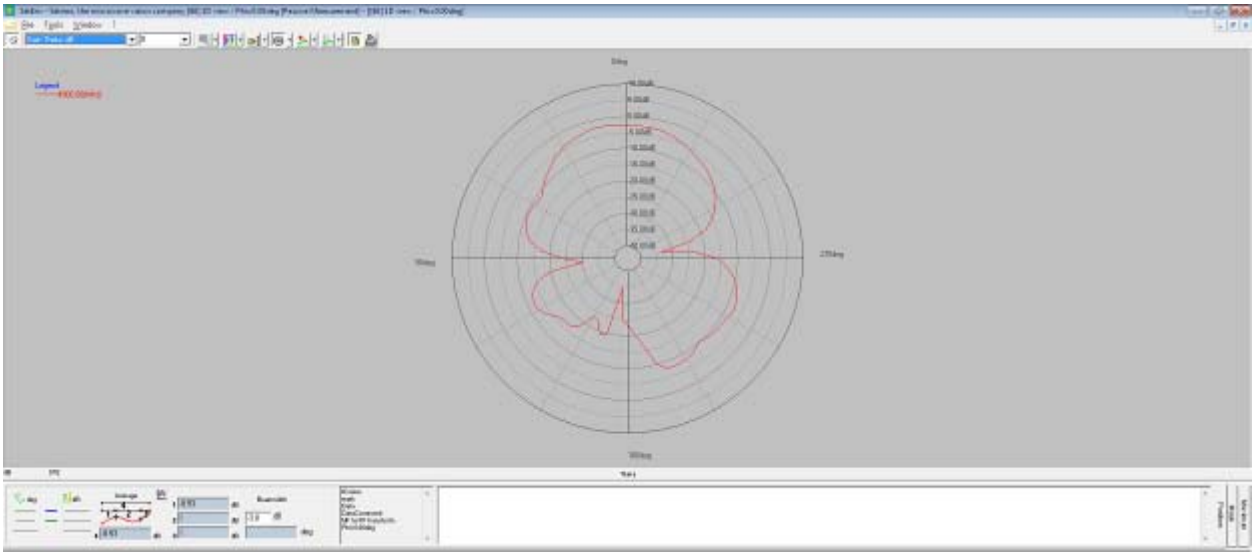
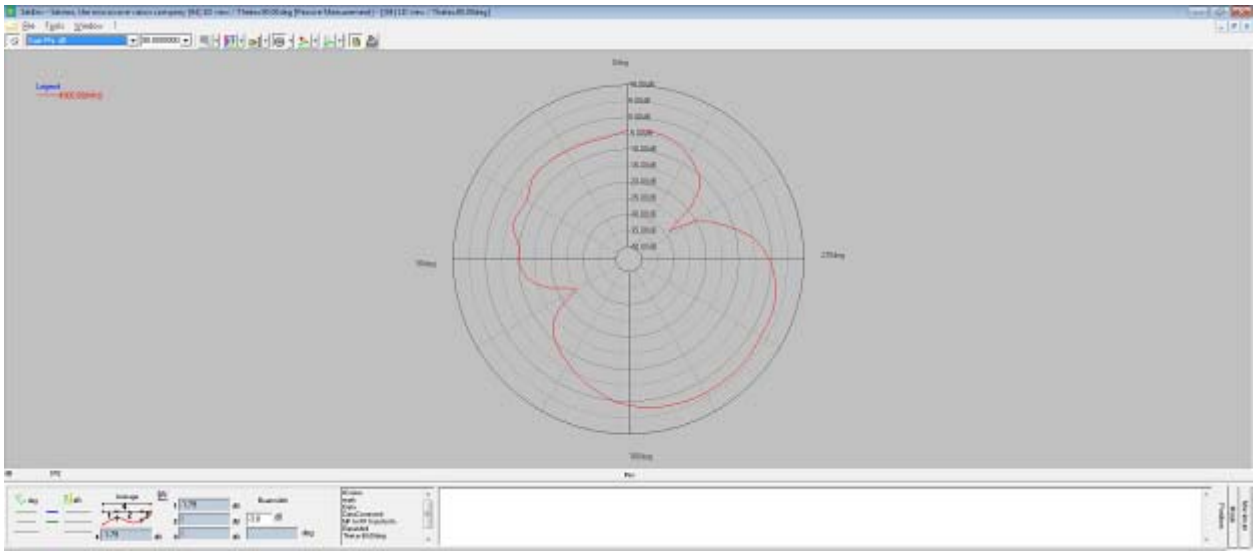
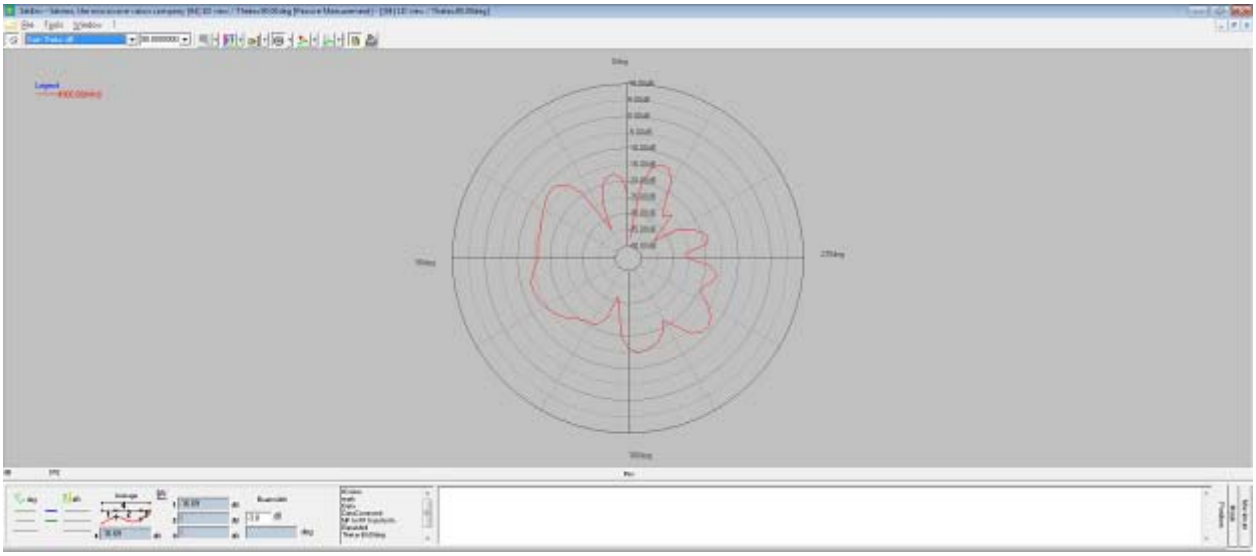


XZ-Theta

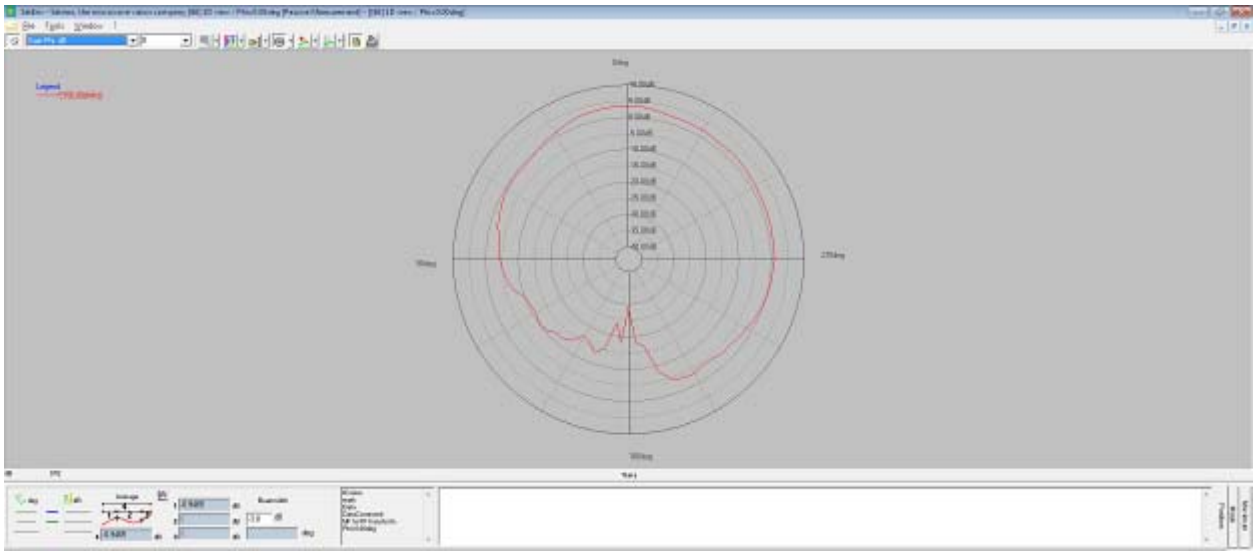


XY-Phi

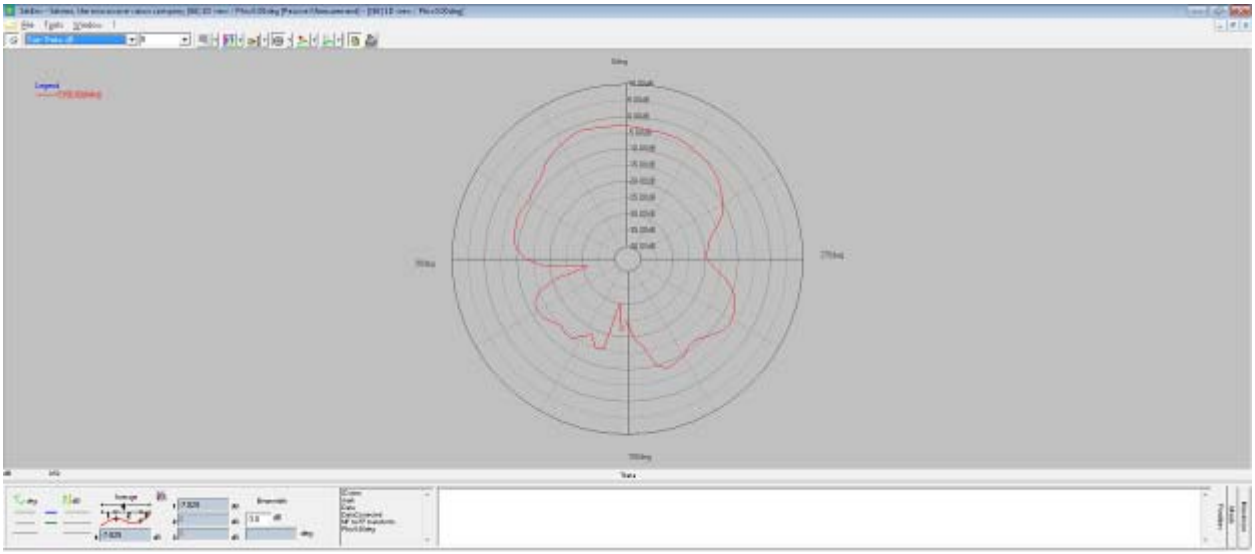


XY-Theta

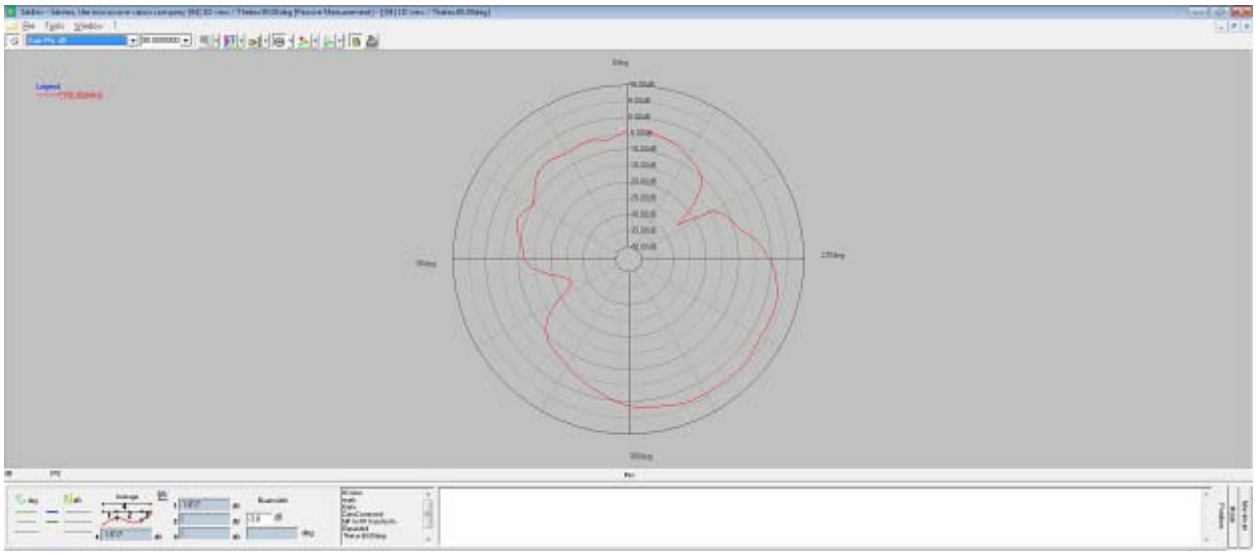
4.3.5 5150MHz



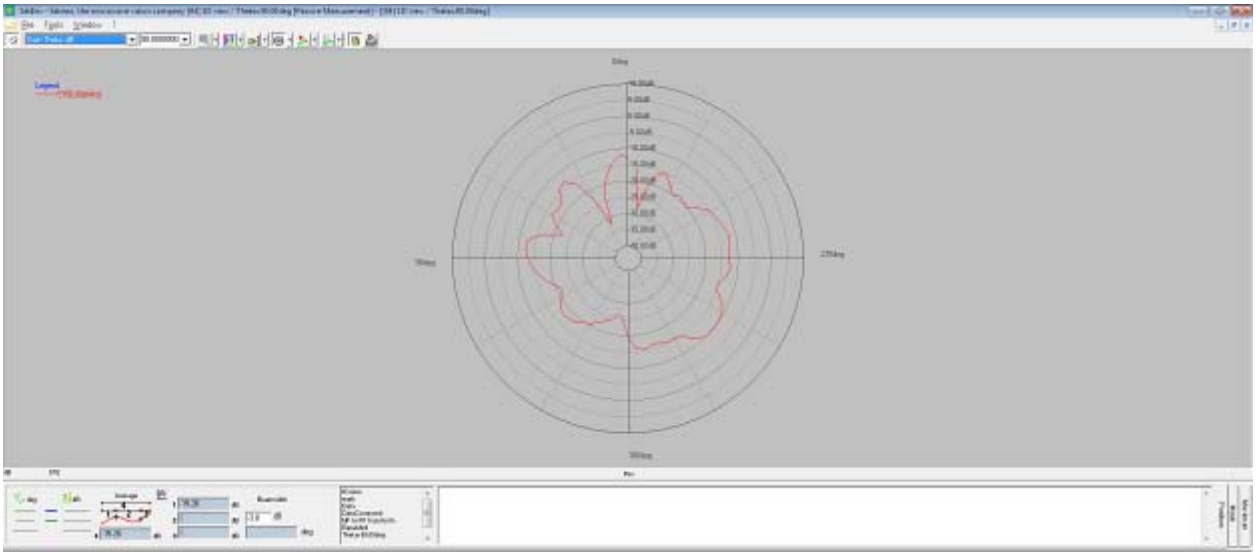
XZ-Phi



XZ-Theta

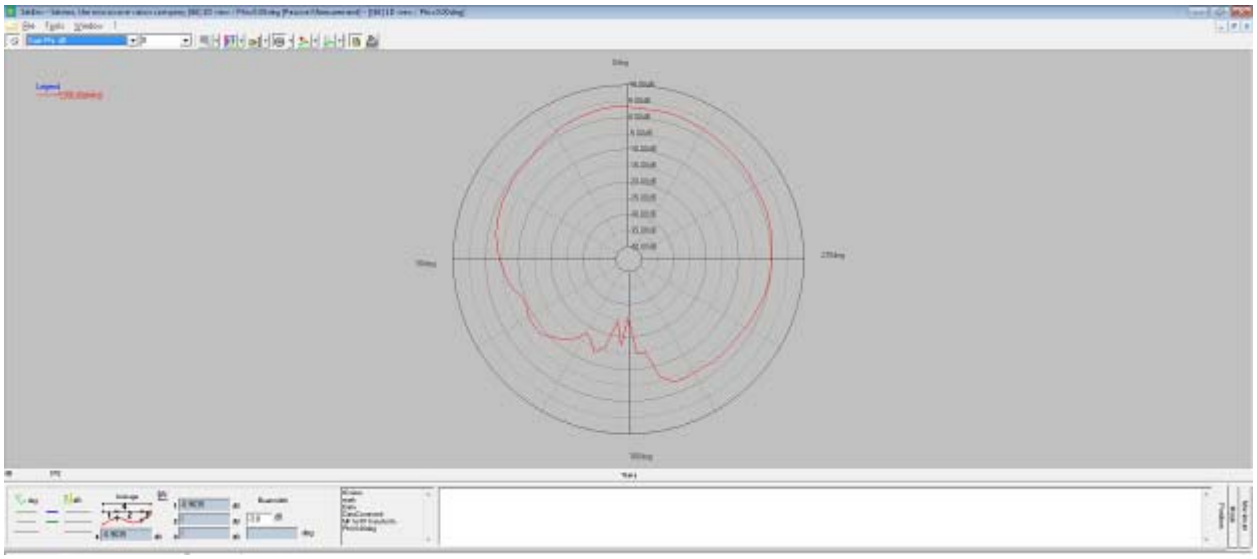


XY-Phi

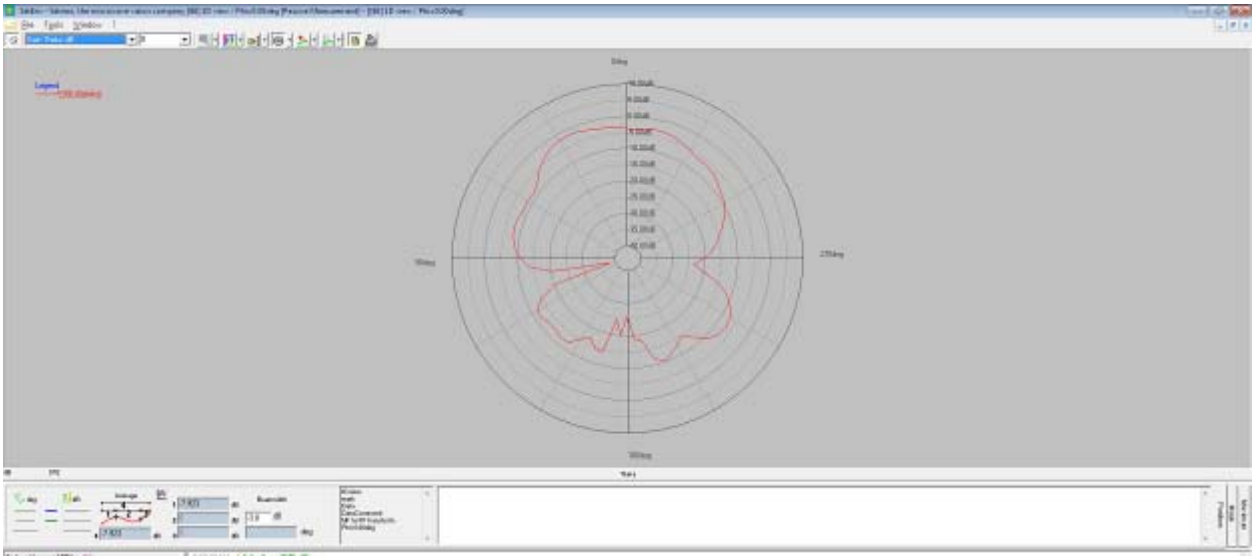


XY-Theta

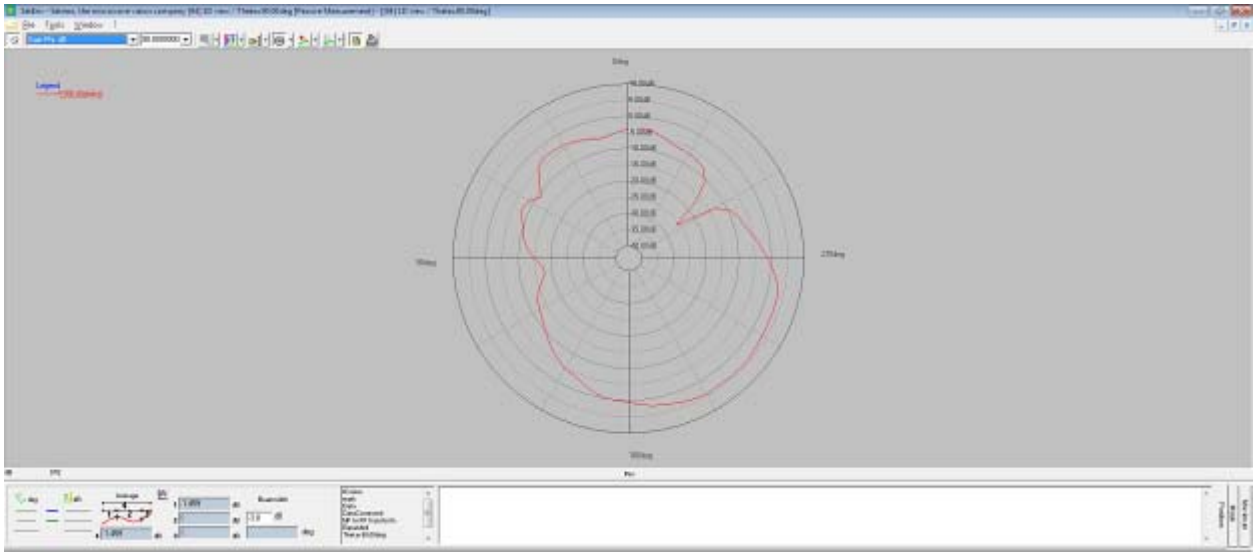
4.3.6 5350MHz



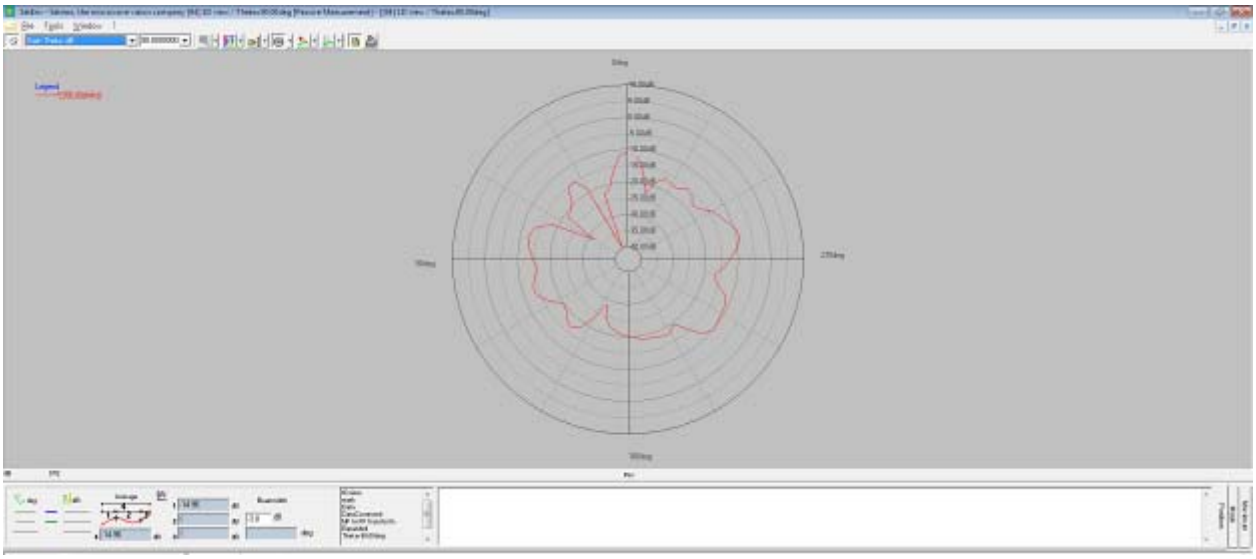
XZ-Phi



XZ-Theta

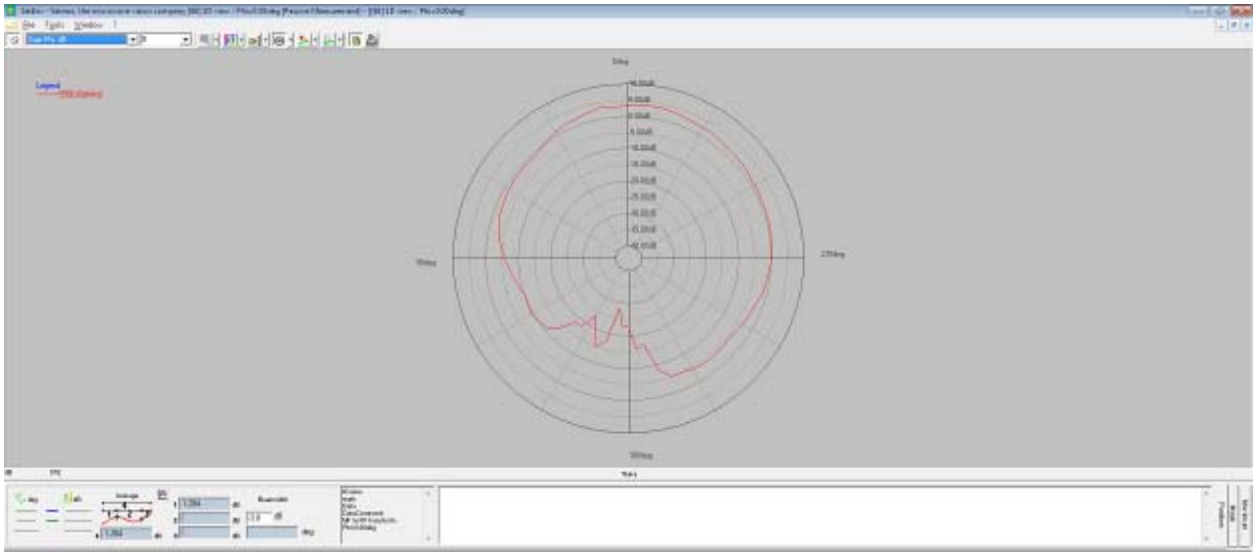


XY-Phi

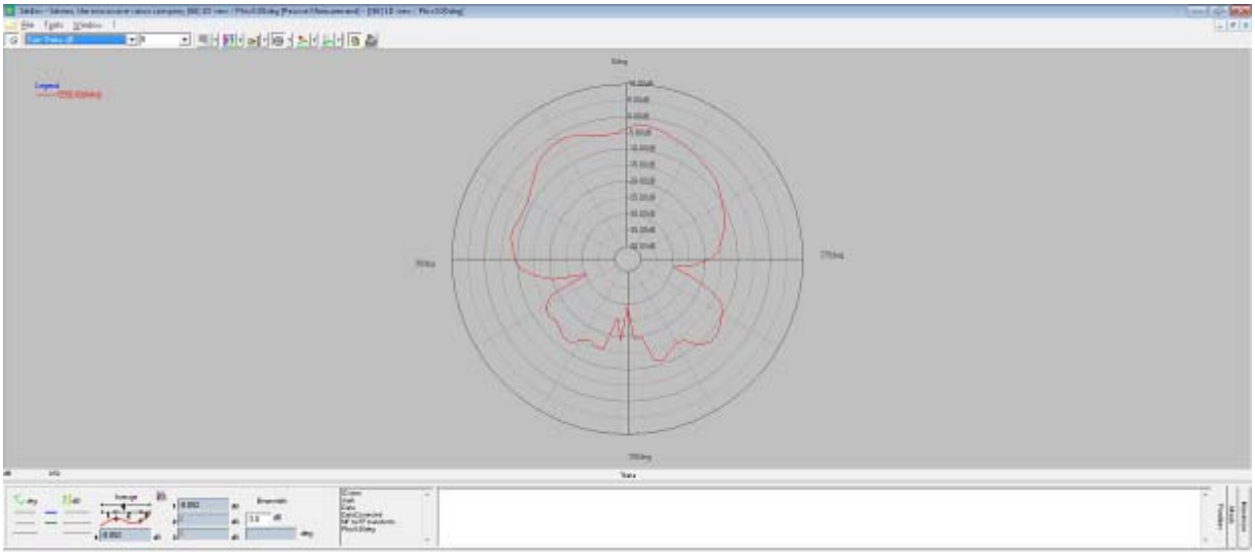


XY-Theta

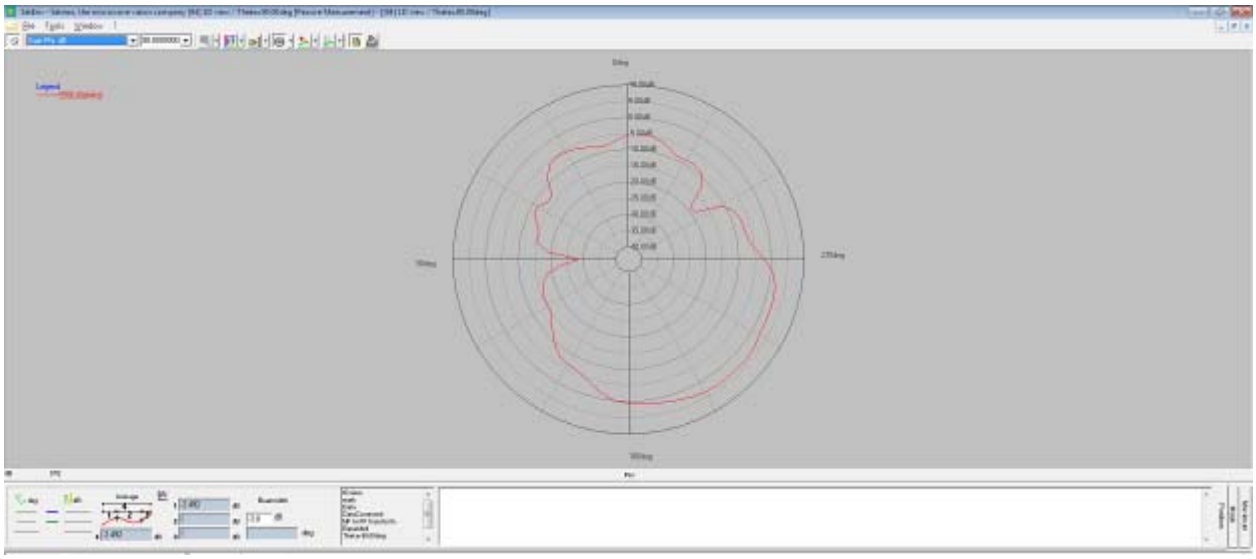
4.3.7 5550MHz



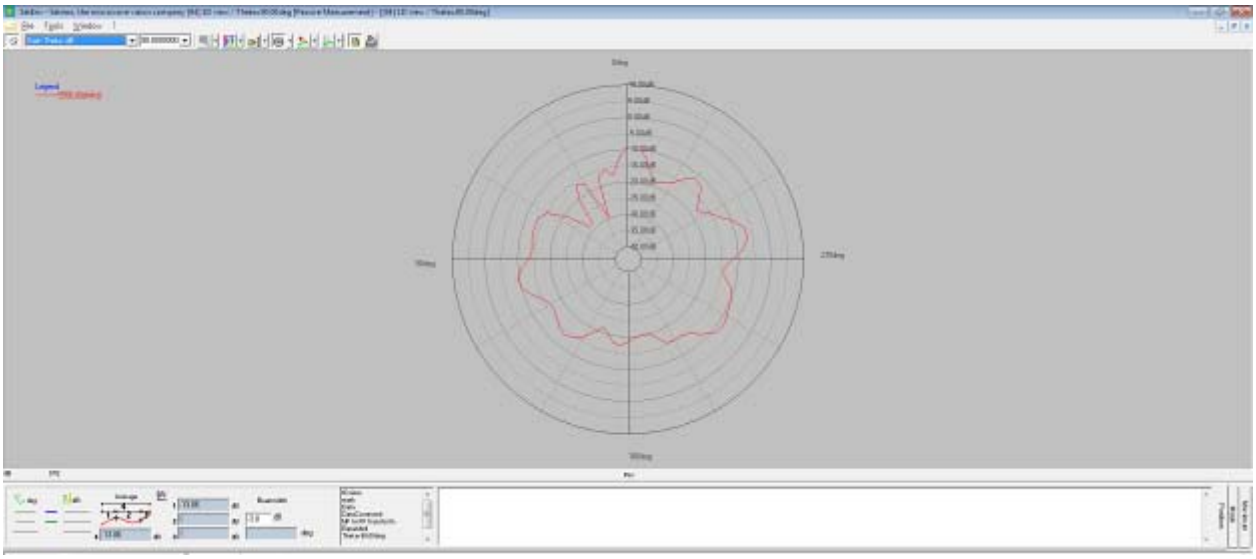
XZ-Phi



XZ-Theta

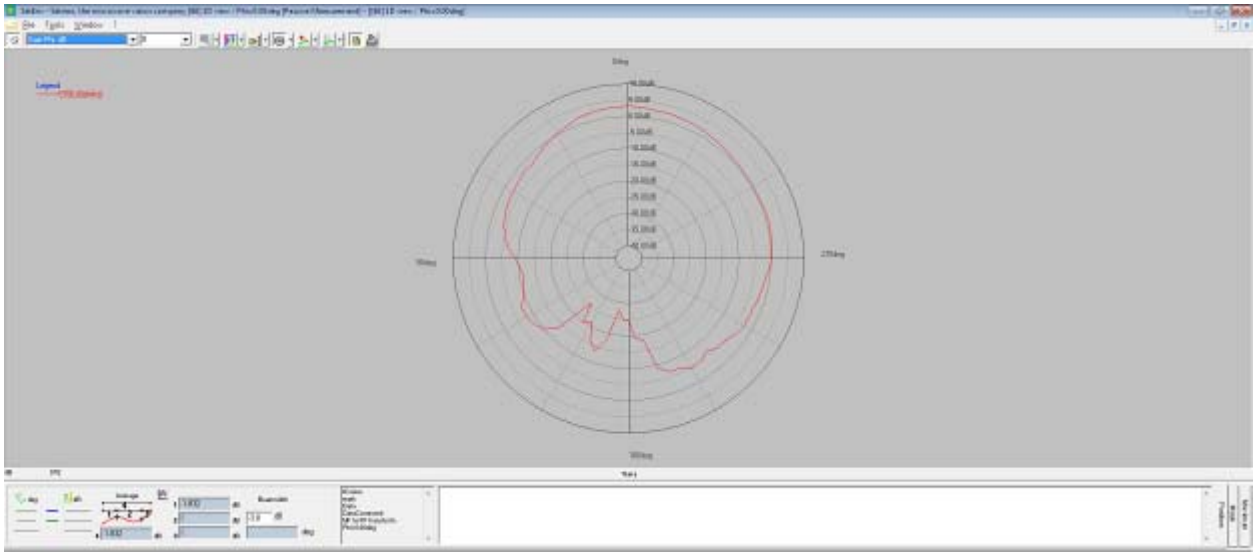


XY-Phi

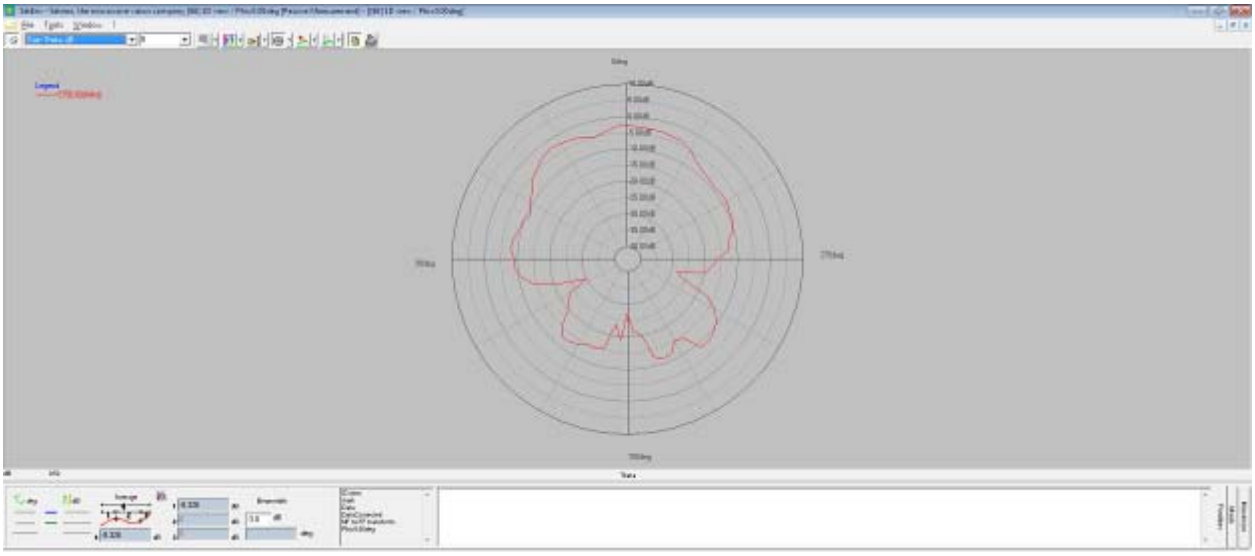


XY-Theta

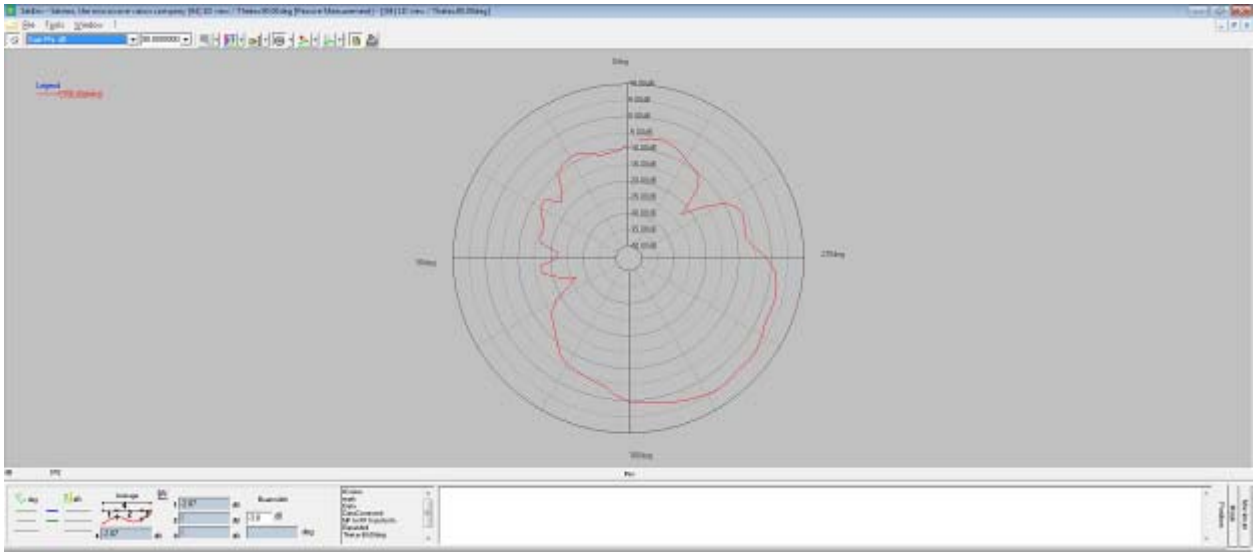
4.3.8 5750MHz



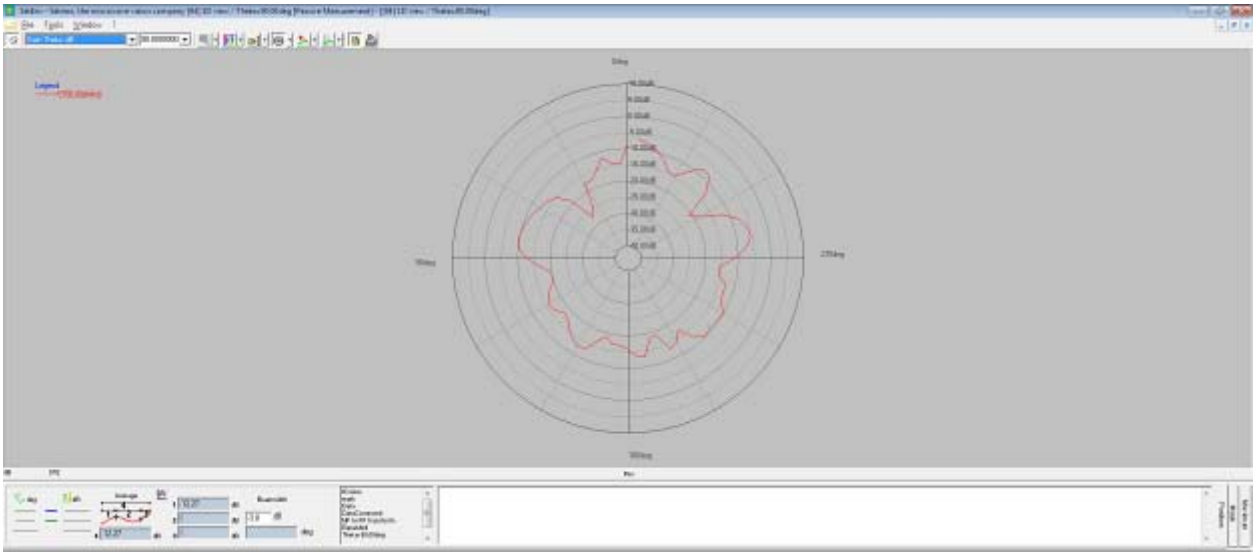
XZ-Phi



XZ-Theta

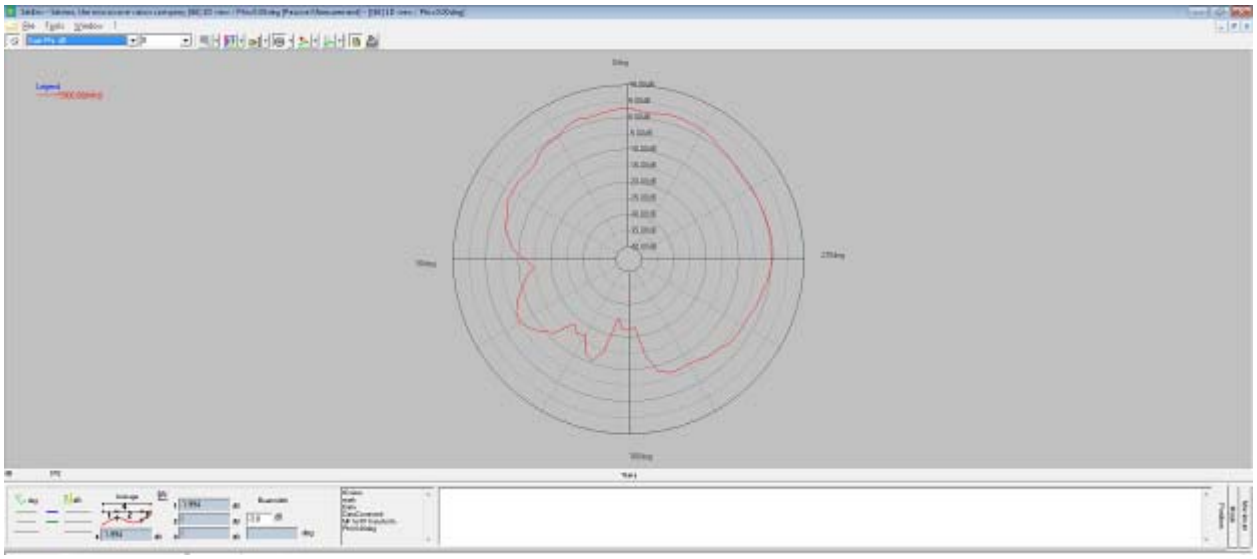


XY-Phi

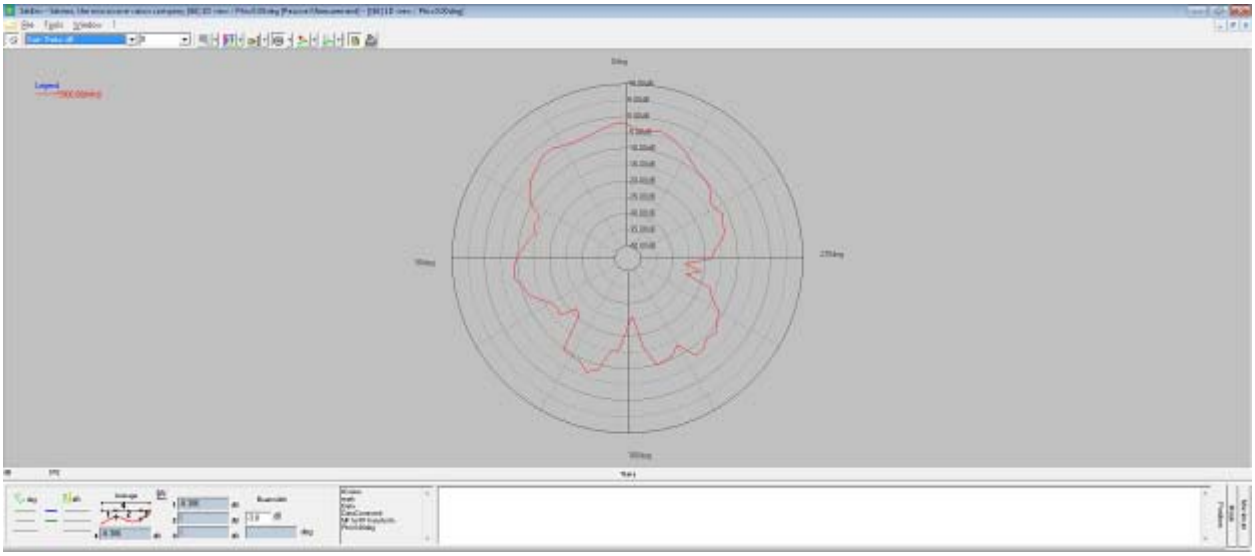


XY-Theta

4.3.9 5900MHz



XZ-Phi



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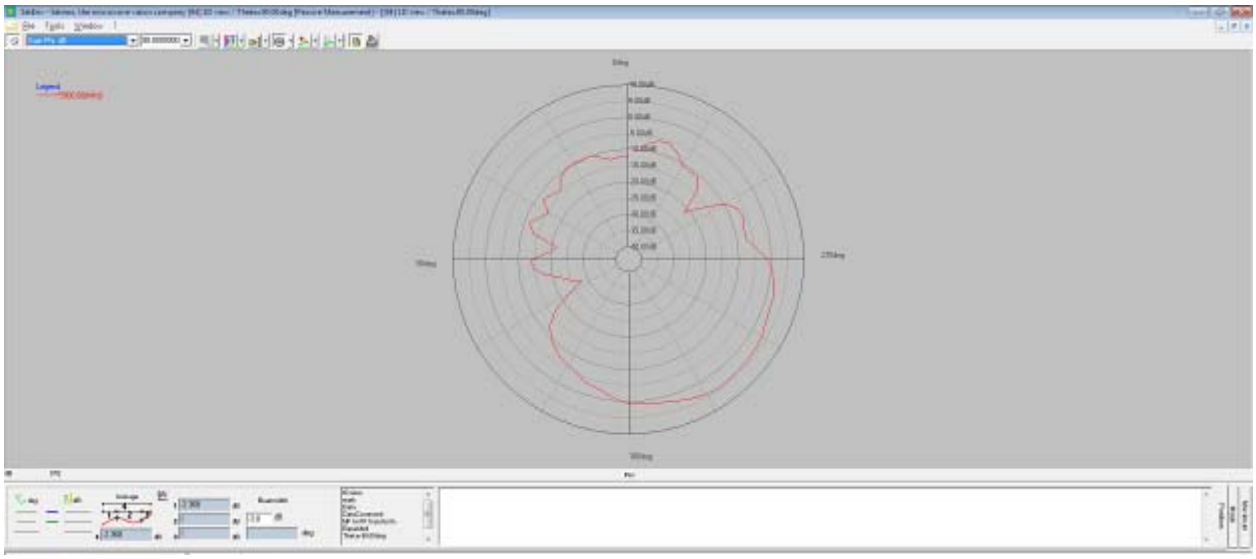
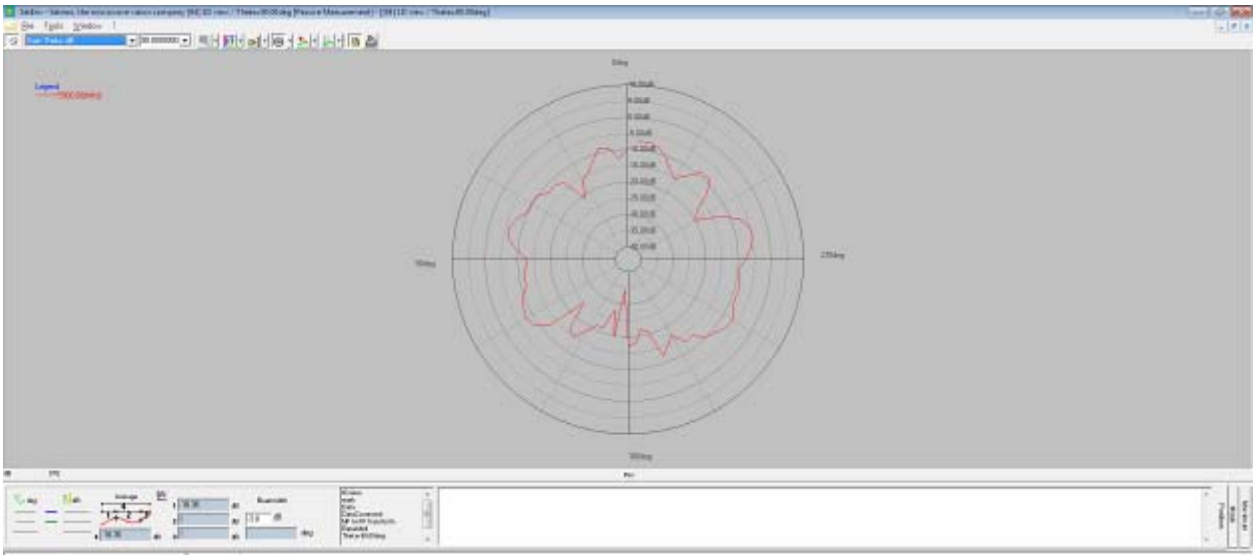


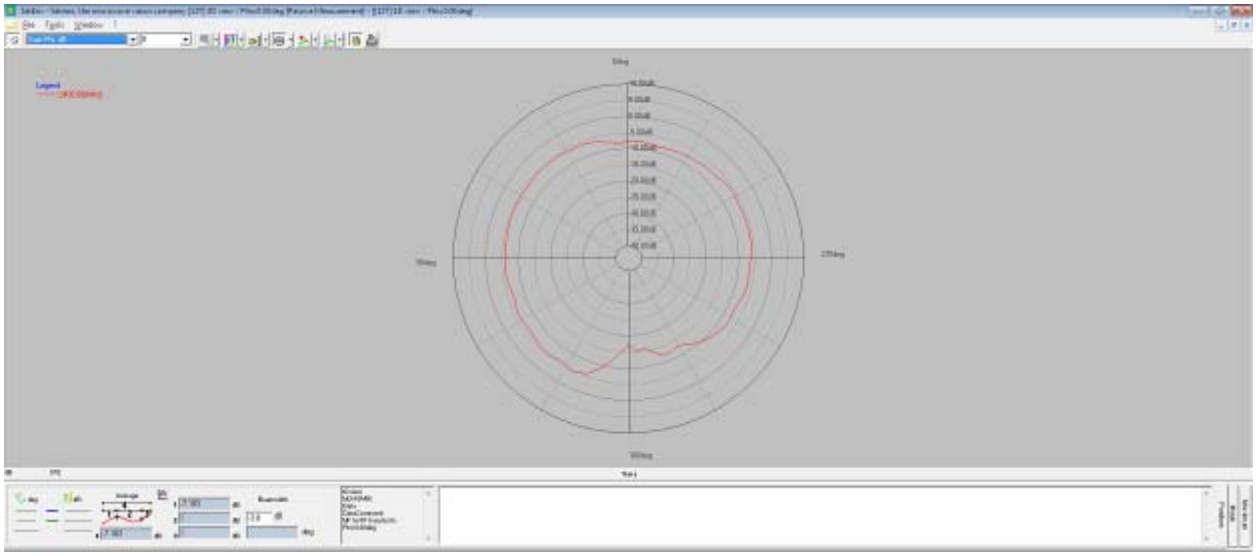
XY-Phi



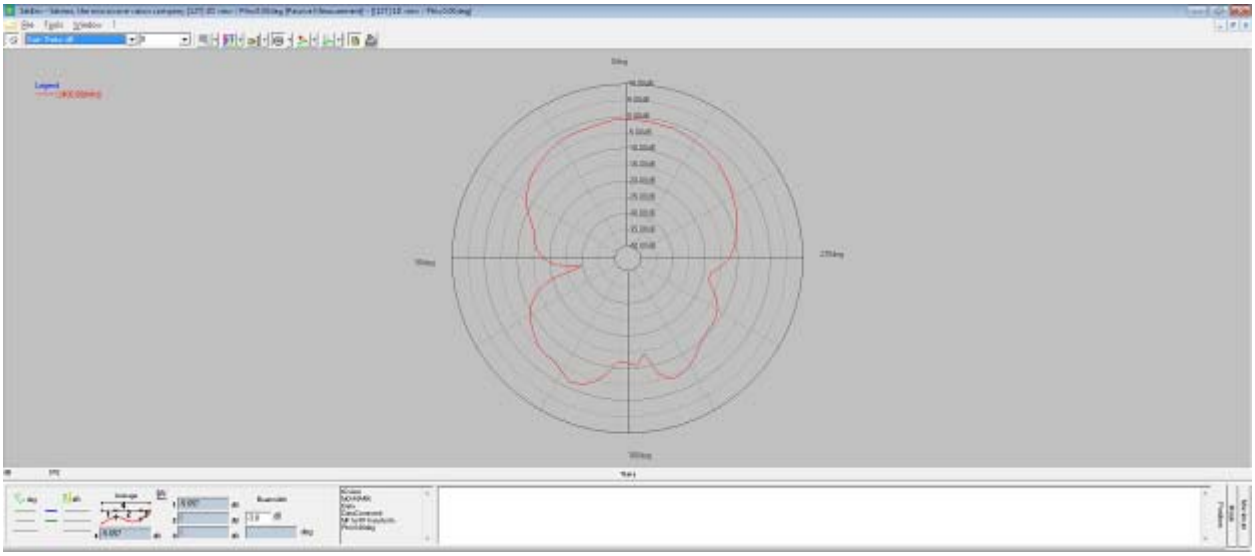
XY-Theta

4.4 co port & cross port-Ant2

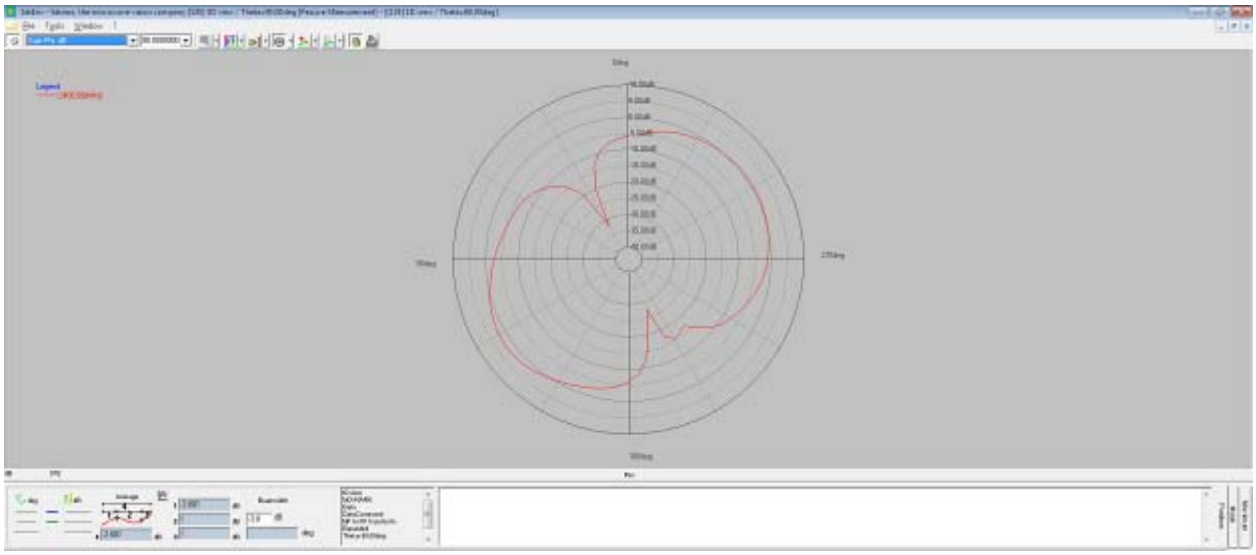
4.4.1 2400MHz



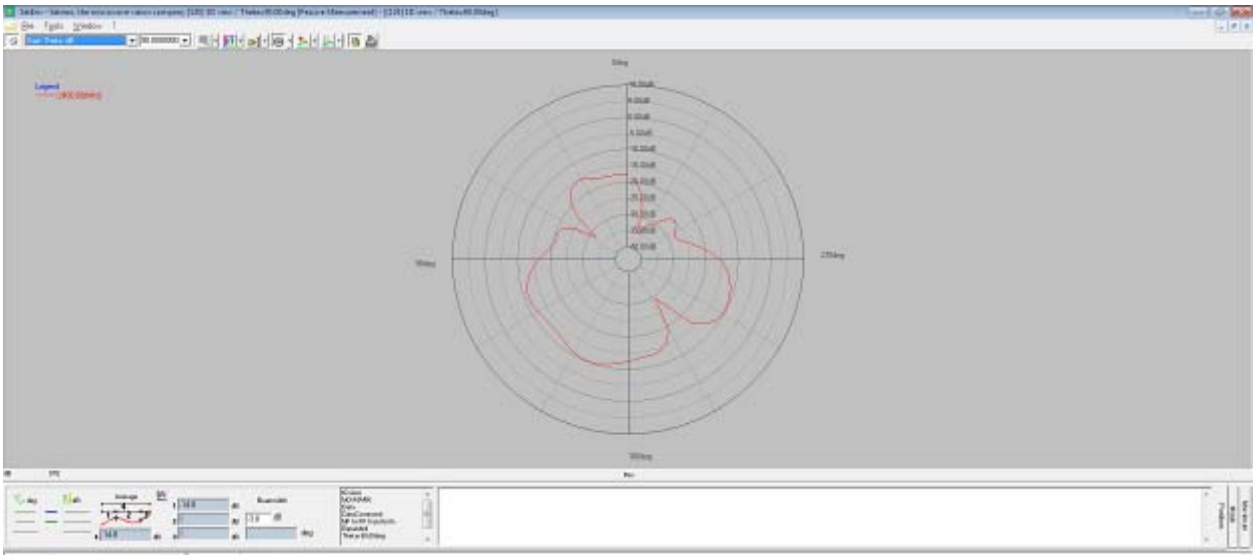
XZ-Phi



XZ-Theta

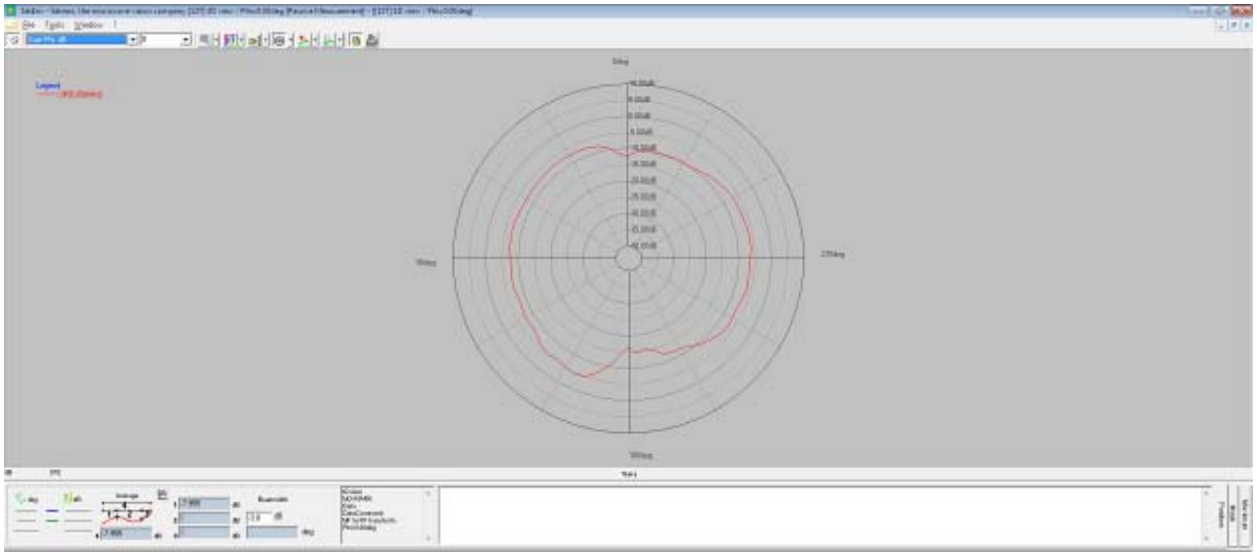


XY-Phi

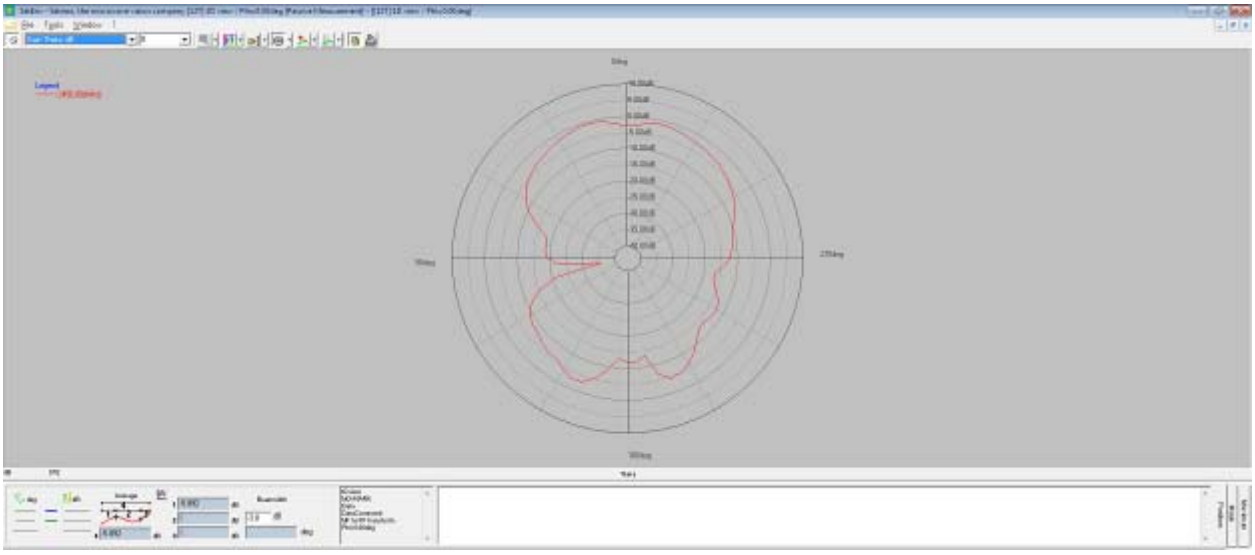


XY-Theta

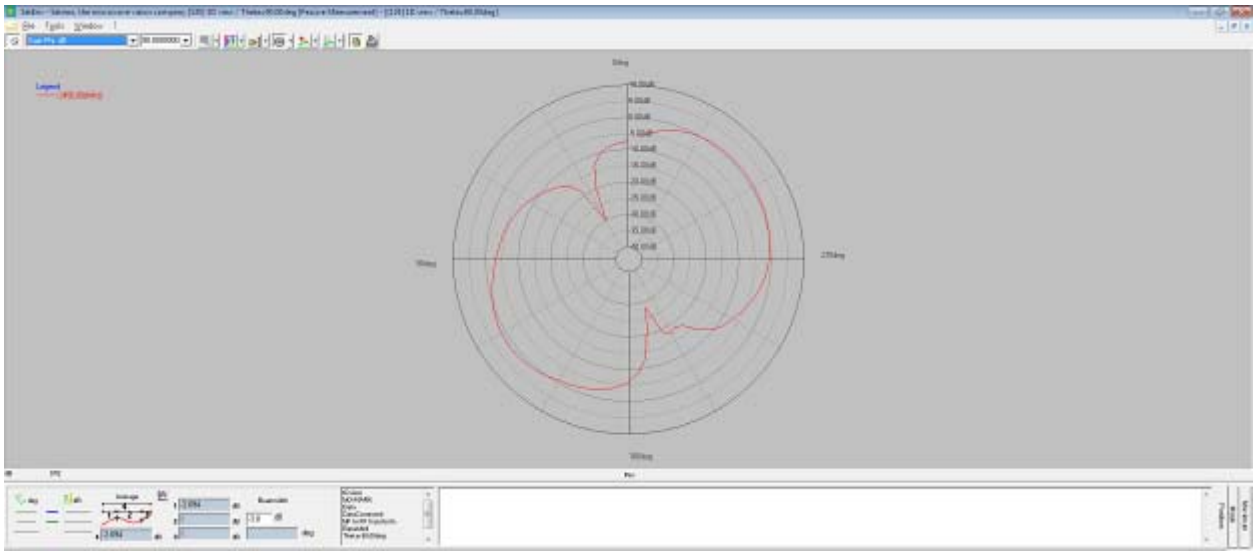
4.4.2 2450MHz



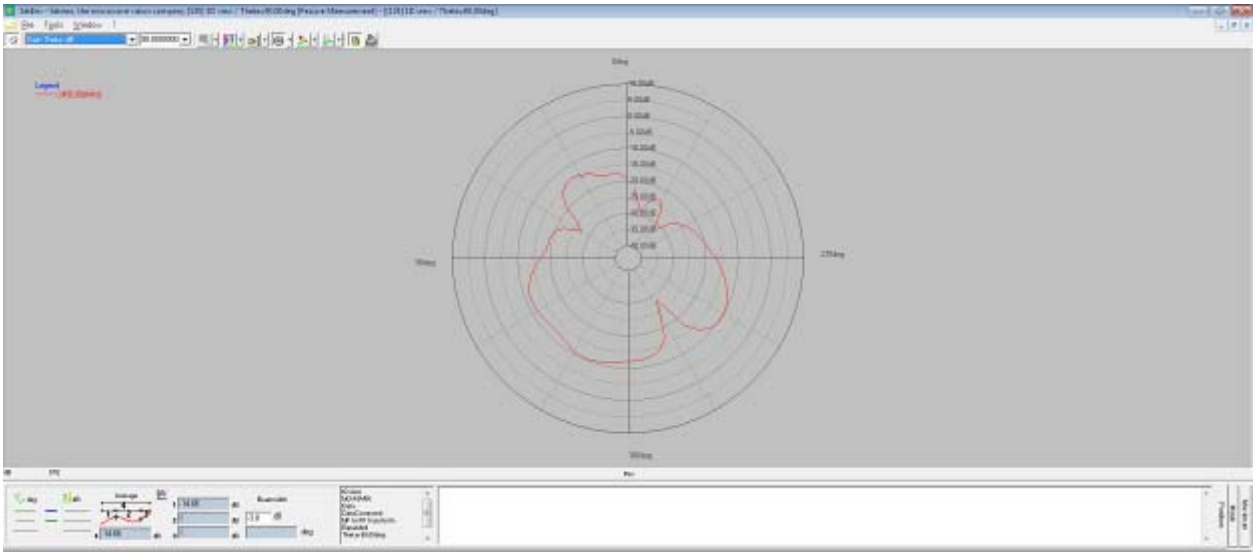
XZ-Phi



XZ-Theta

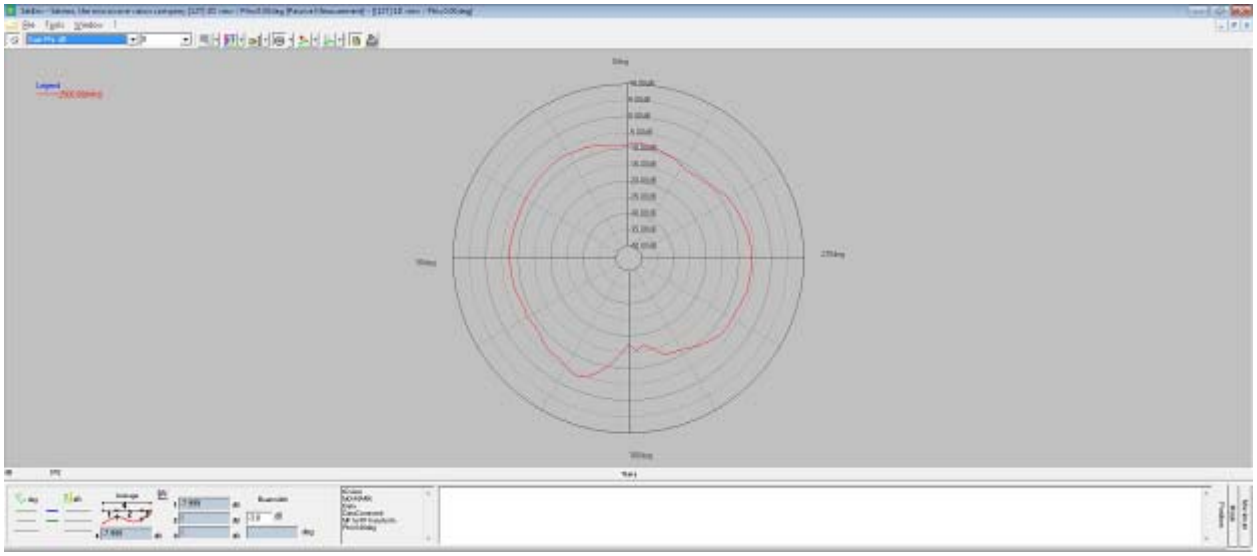


XY-Phi

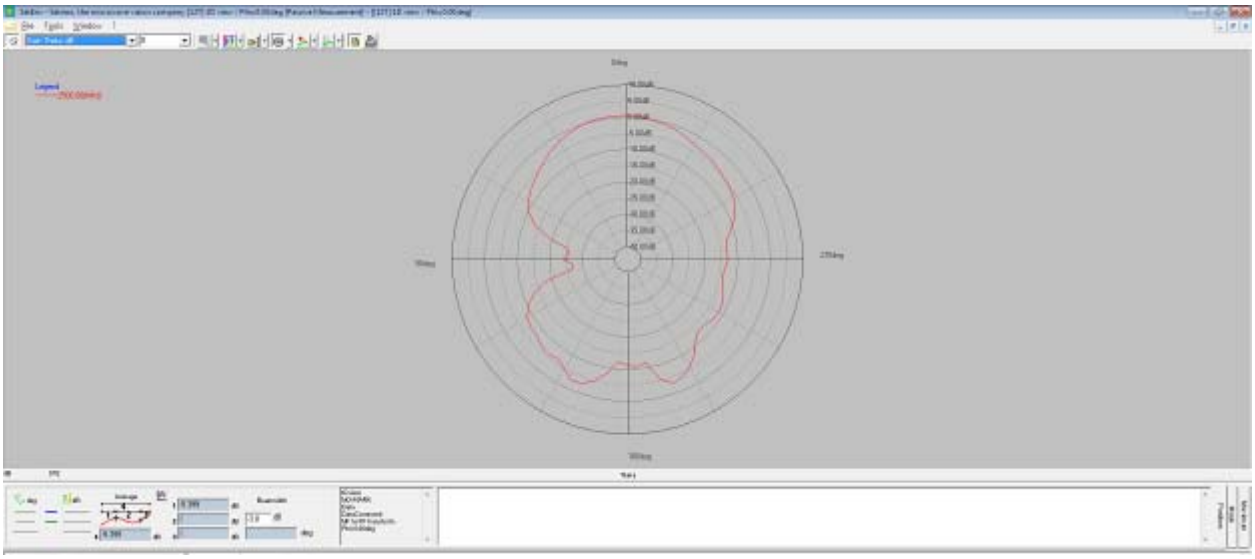


XY-Theta

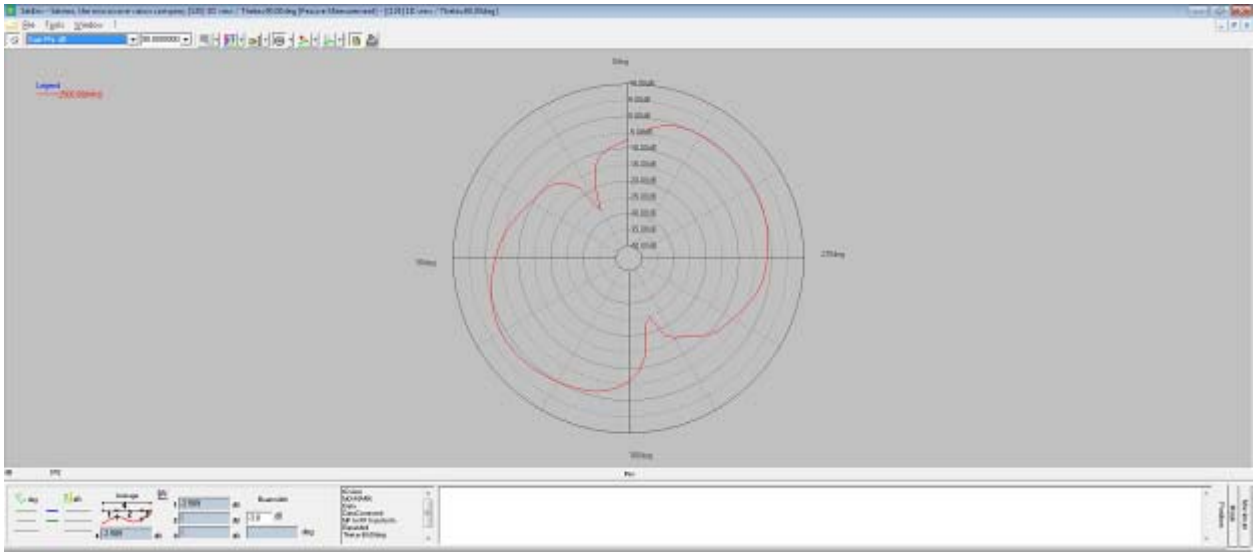
4.4.3 2500MHz



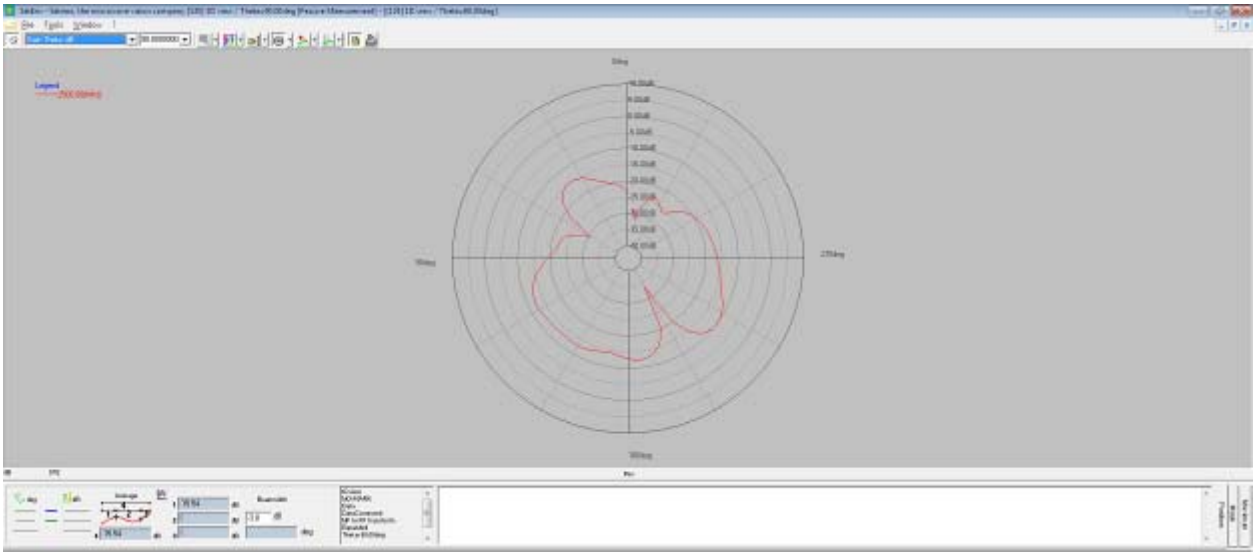
XZ-Phi



XZ-Theta

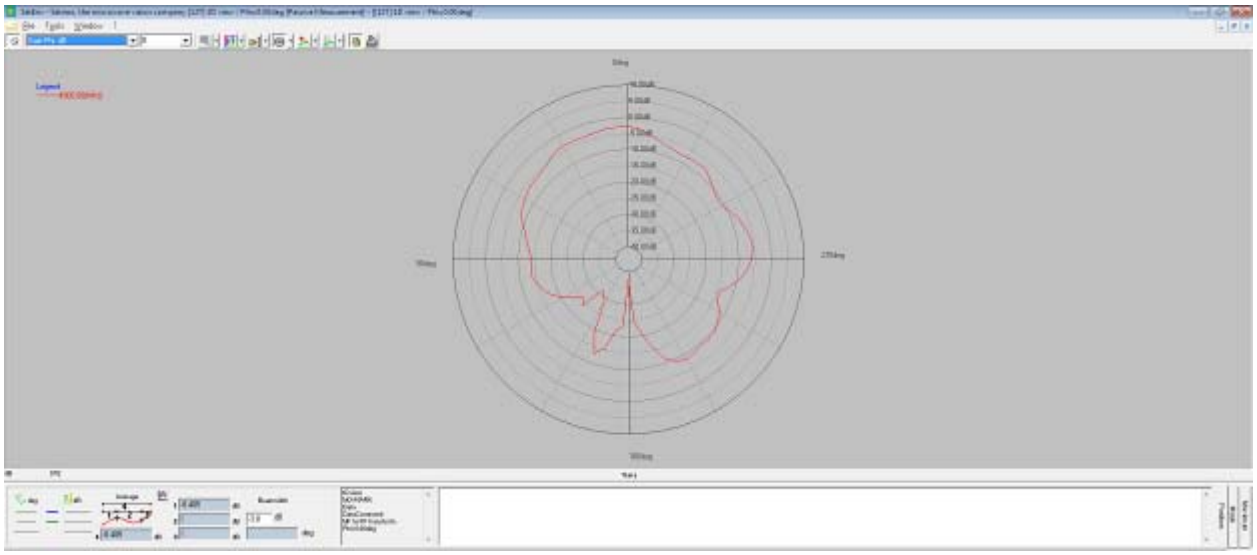


XY-Phi

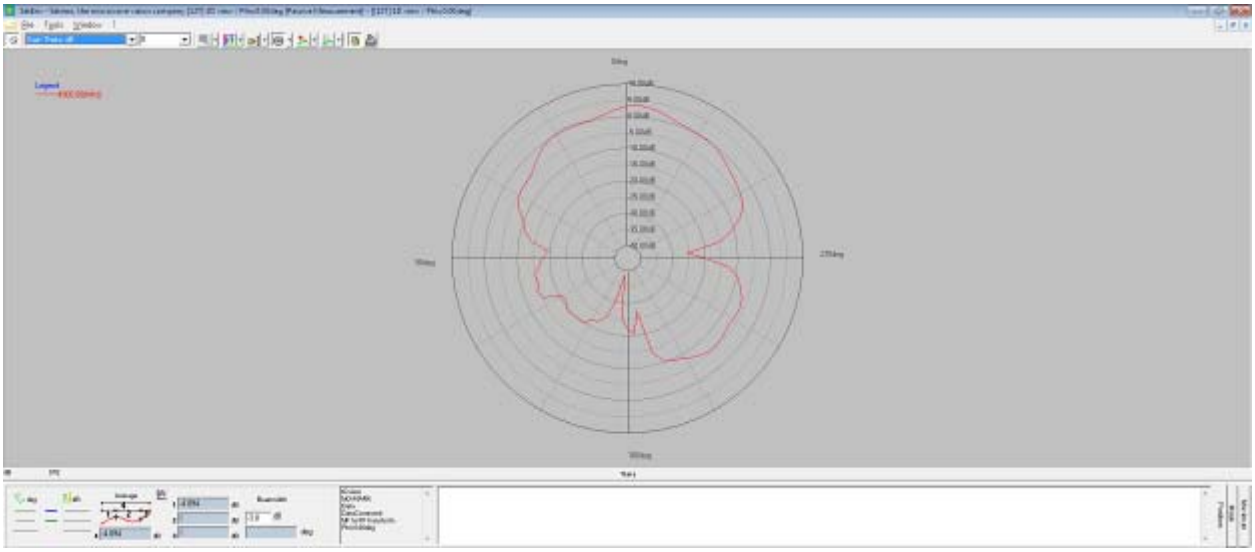


XY-Theta

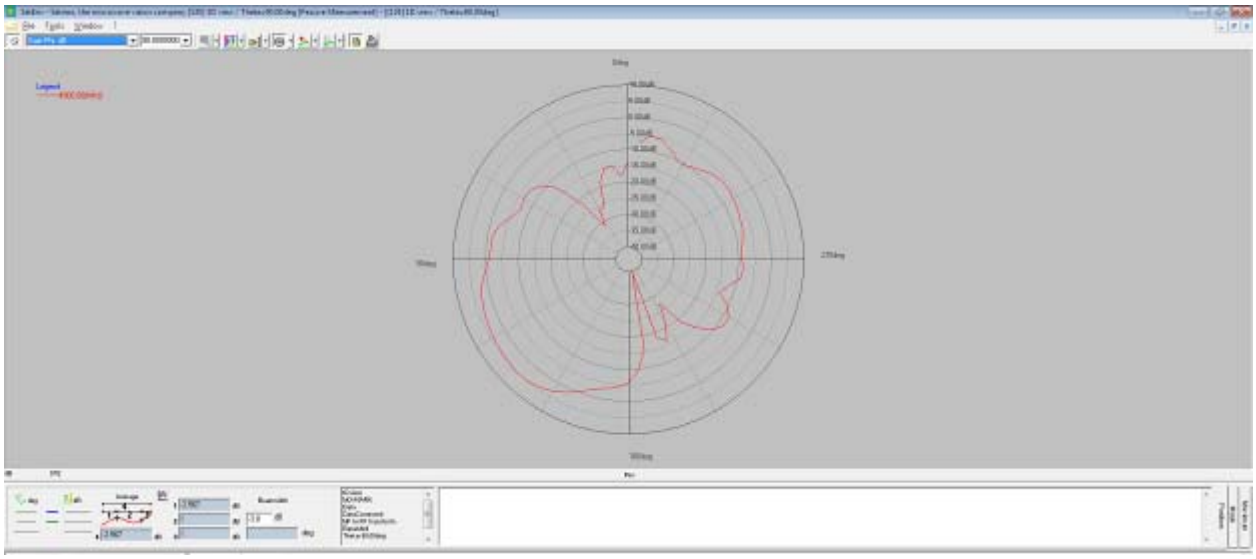
4.4.4 4900MHz



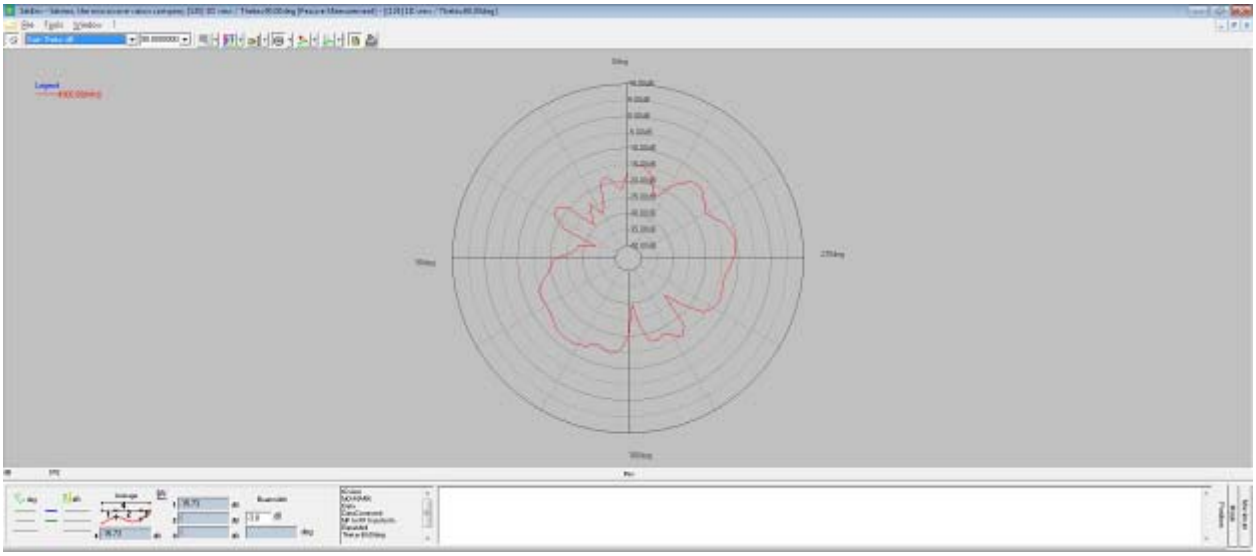
XZ-Phi



XZ-Theta

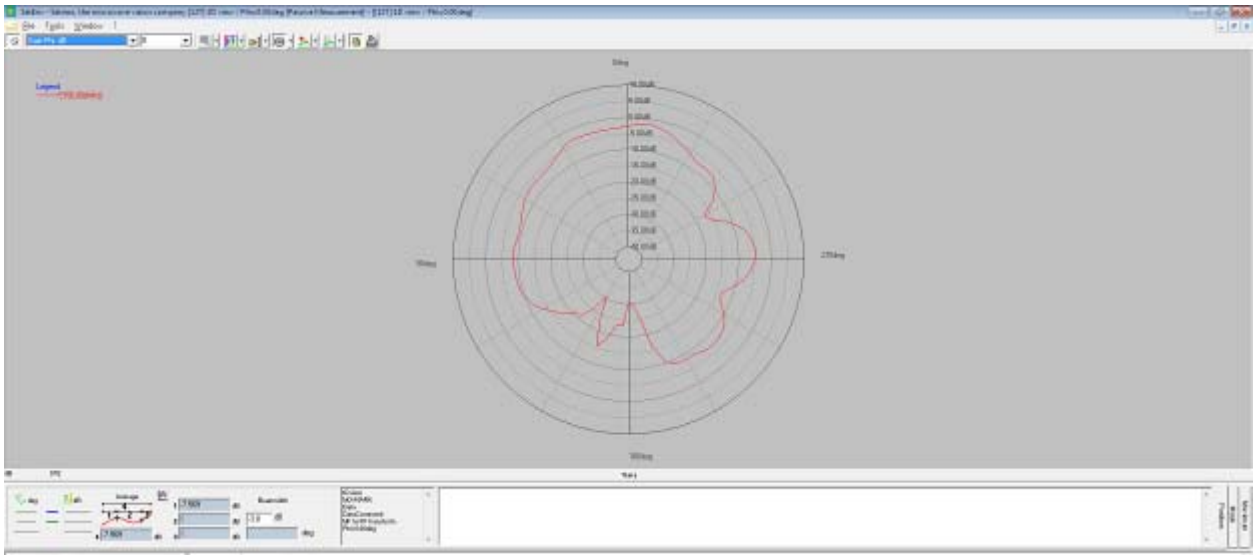


XY-Phi

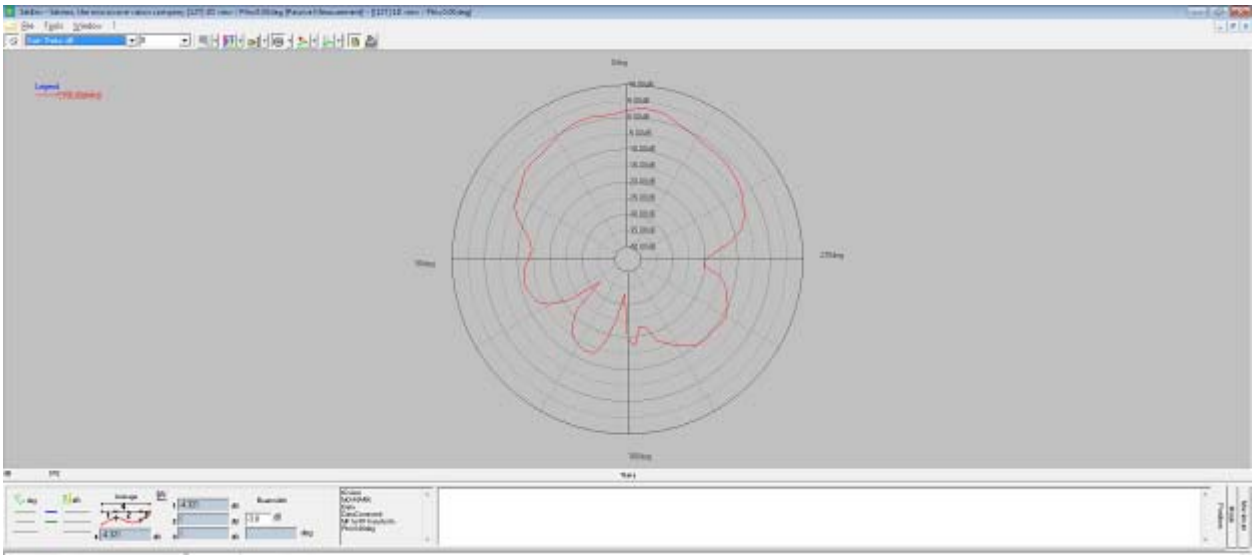


XY-Theta

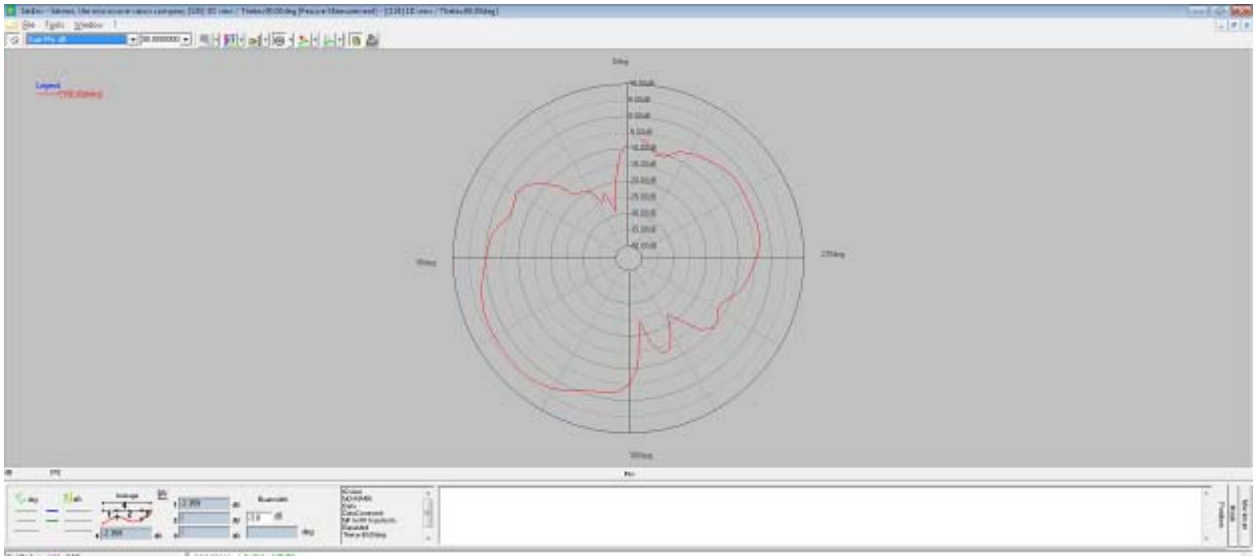
4.4.5 5150MHz



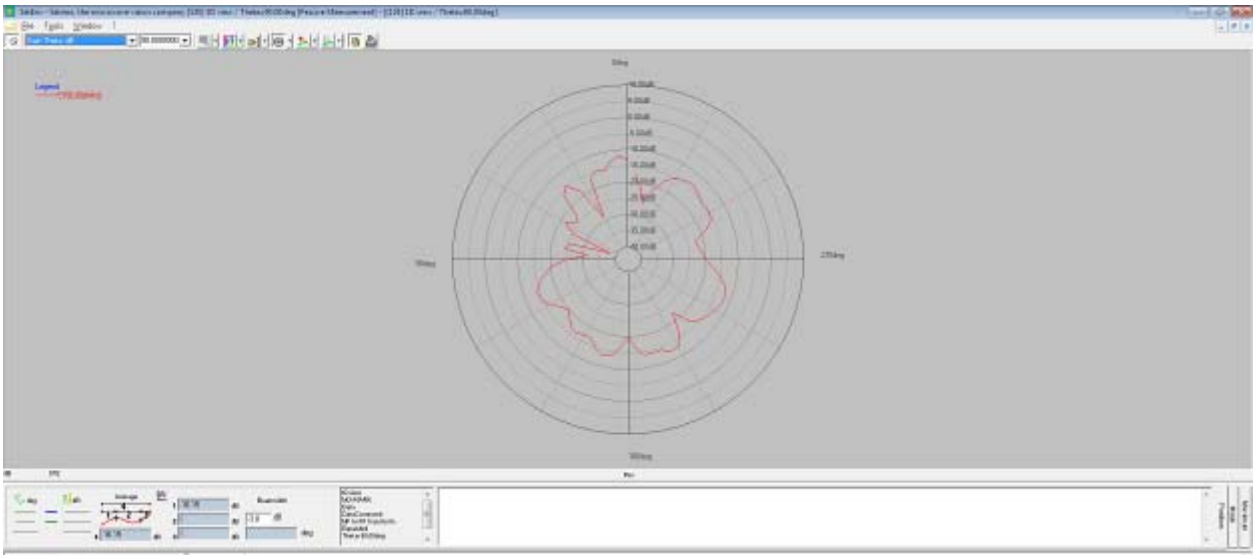
XZ-Phi



XZ-Theta

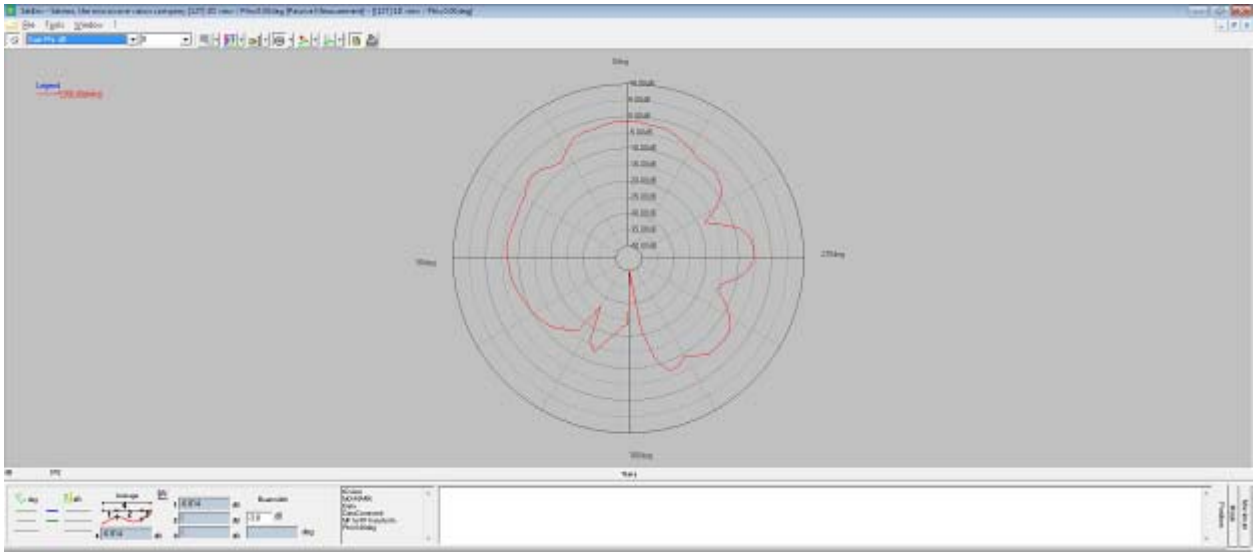


XY-Phi

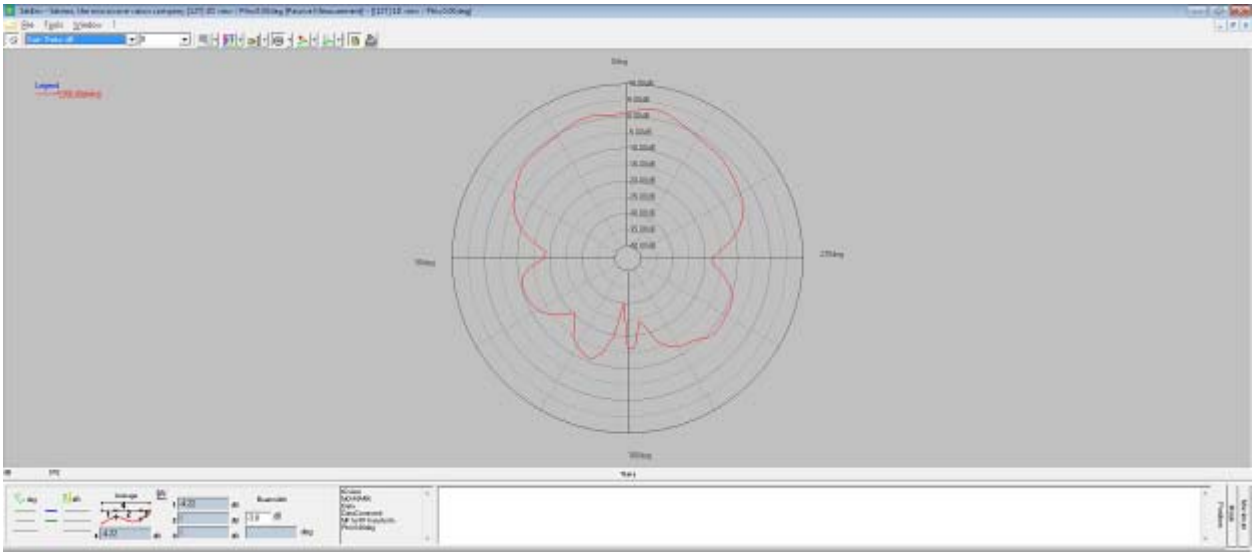


XY-Theta

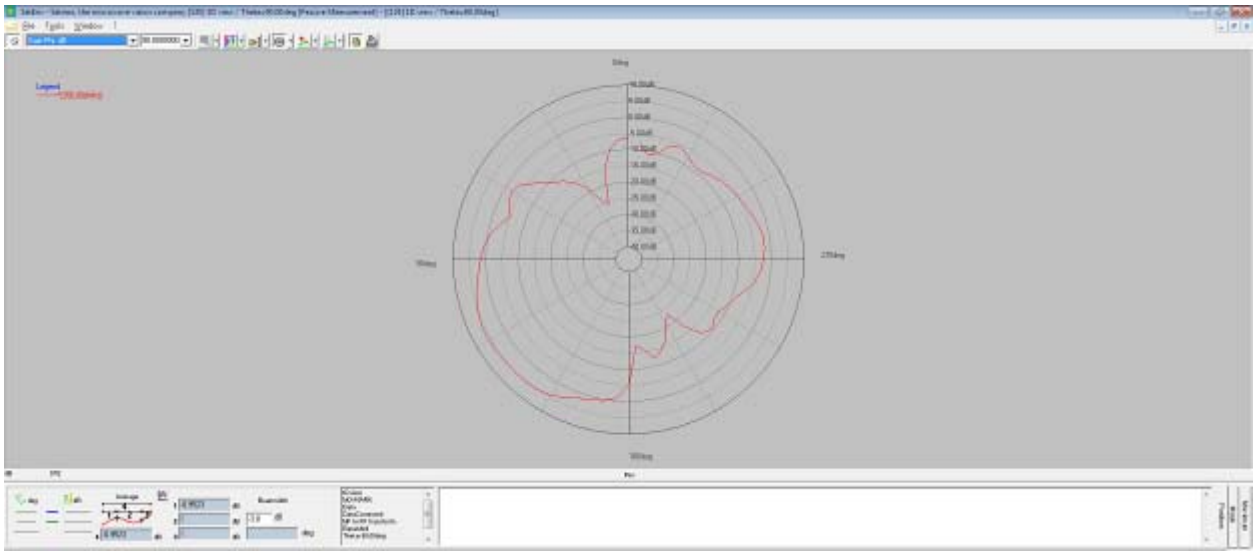
4.4.6 5350MHz



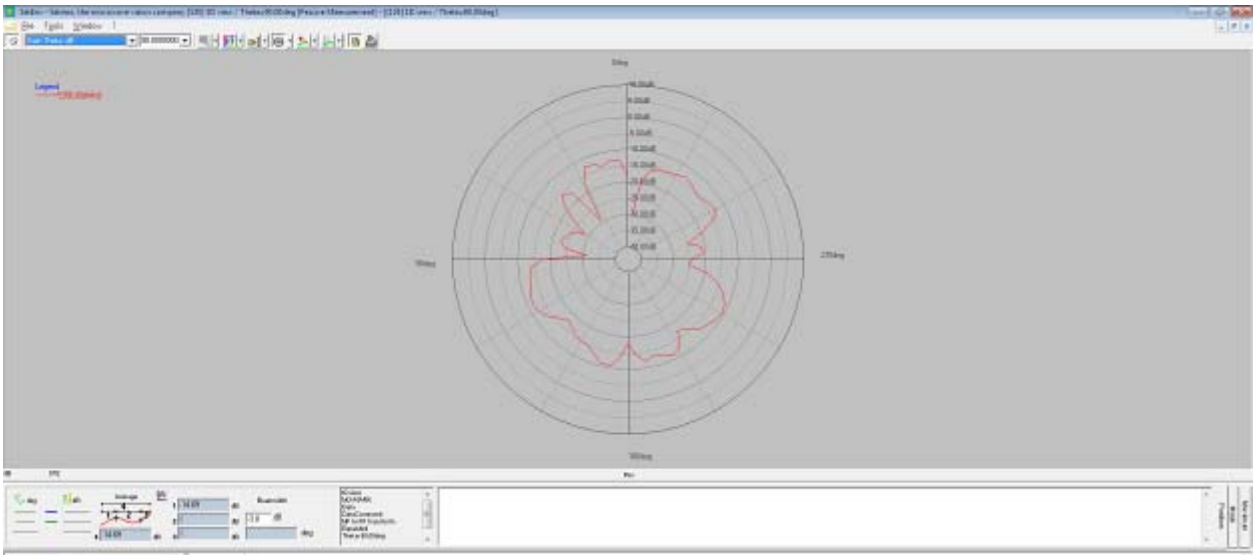
XZ-Phi



XZ-Theta

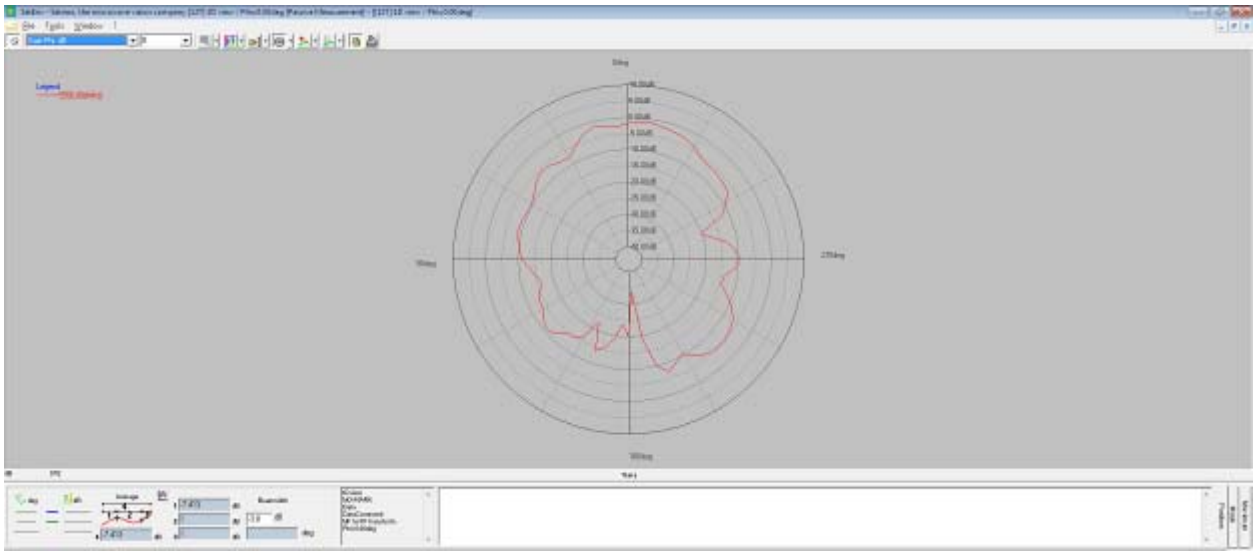


XY-Phi

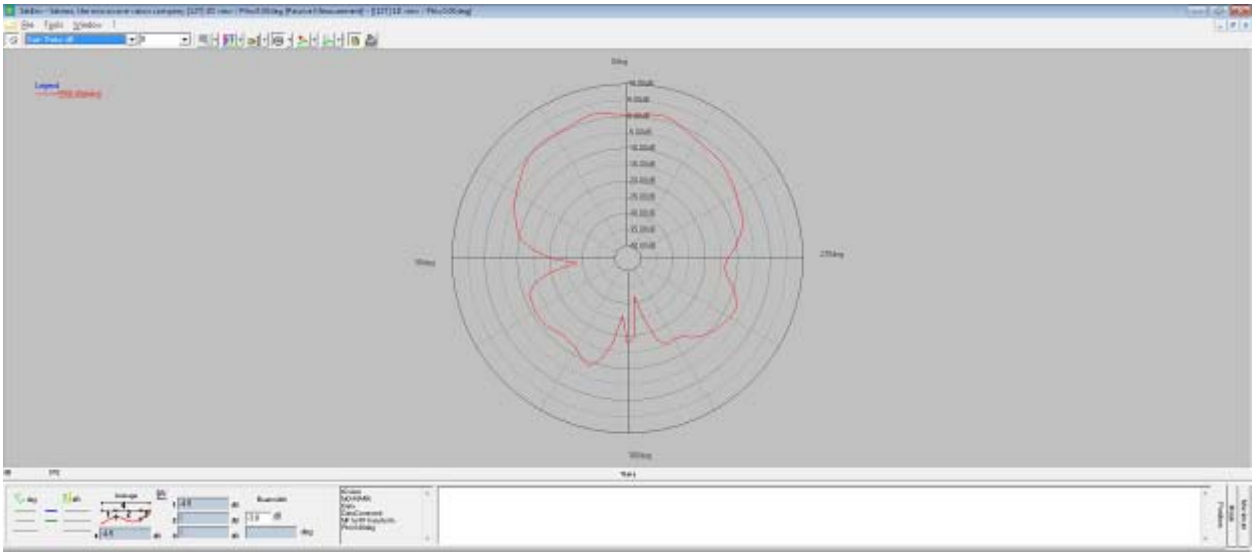


XY-Theta

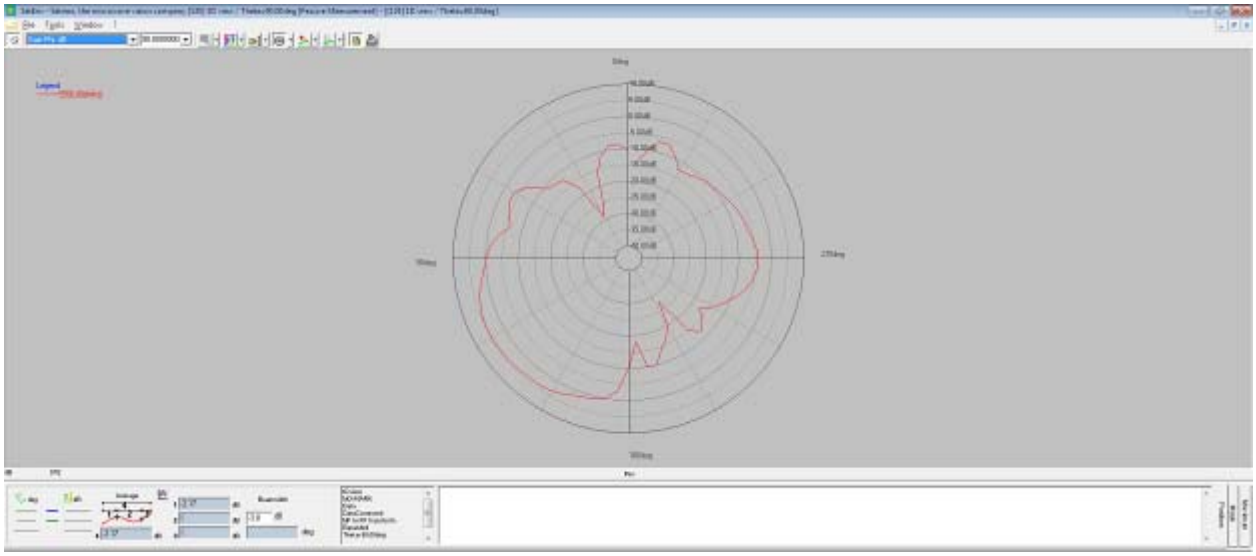
4.4.7 5550MHz



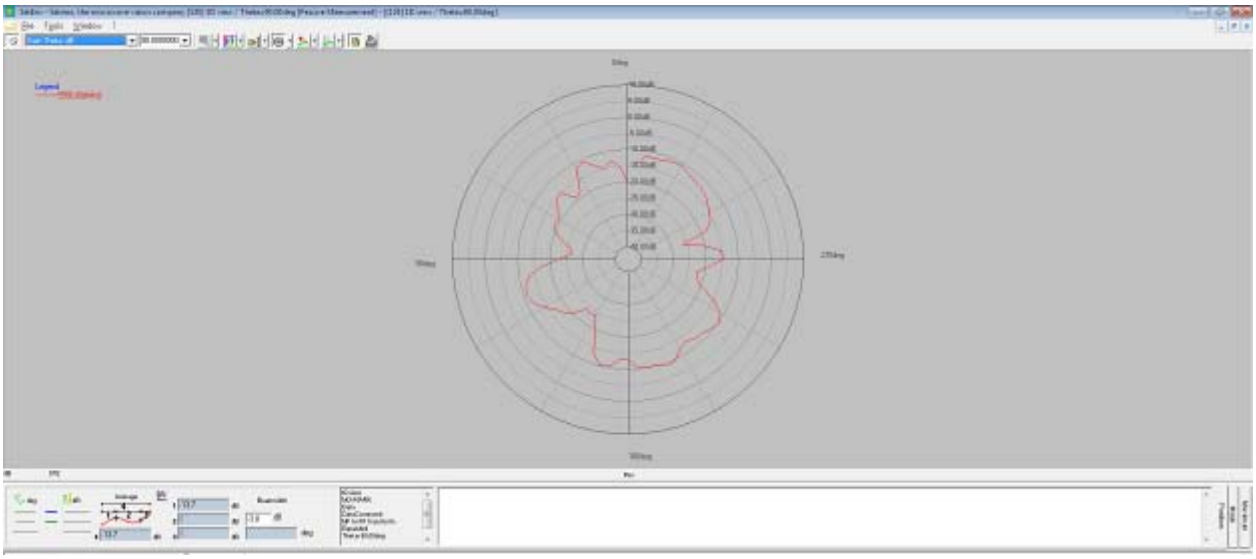
XZ-Phi



XZ-Theta

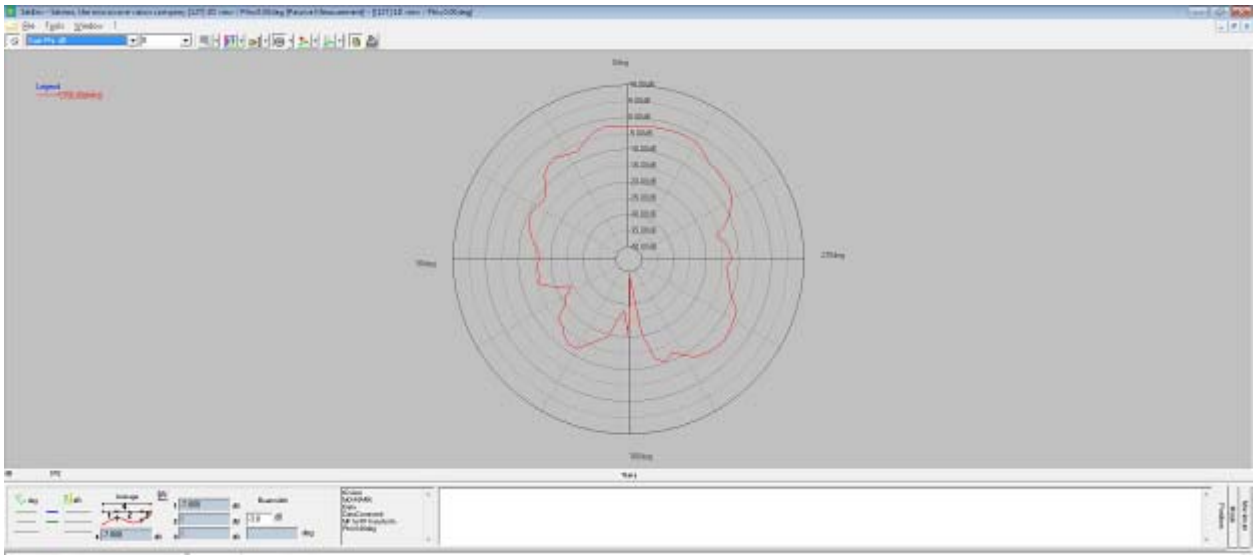


XY-Phi

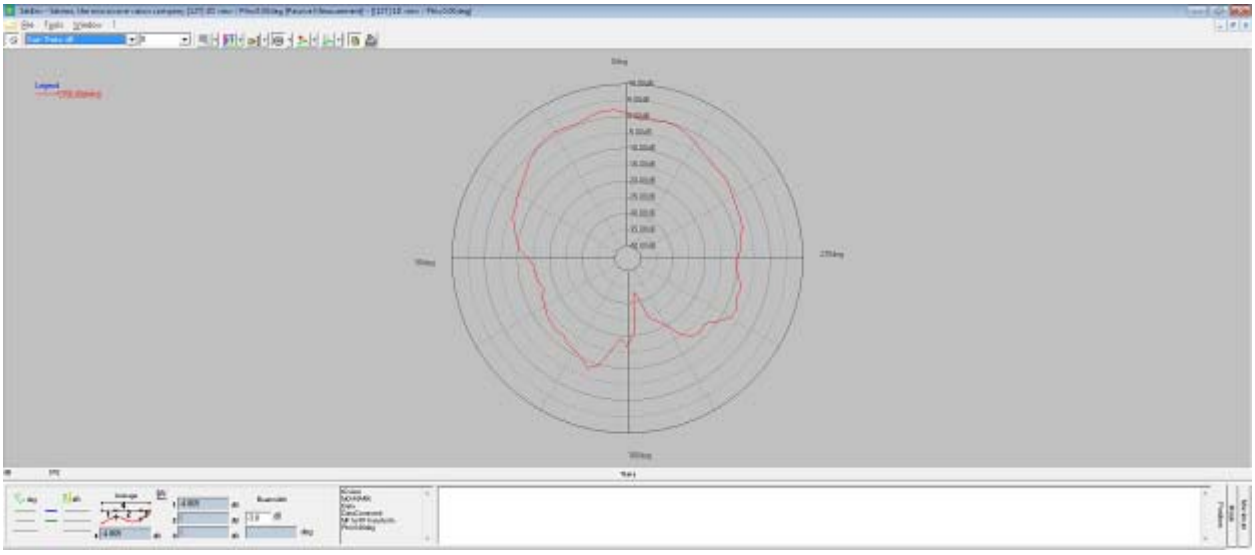


XY-Theta

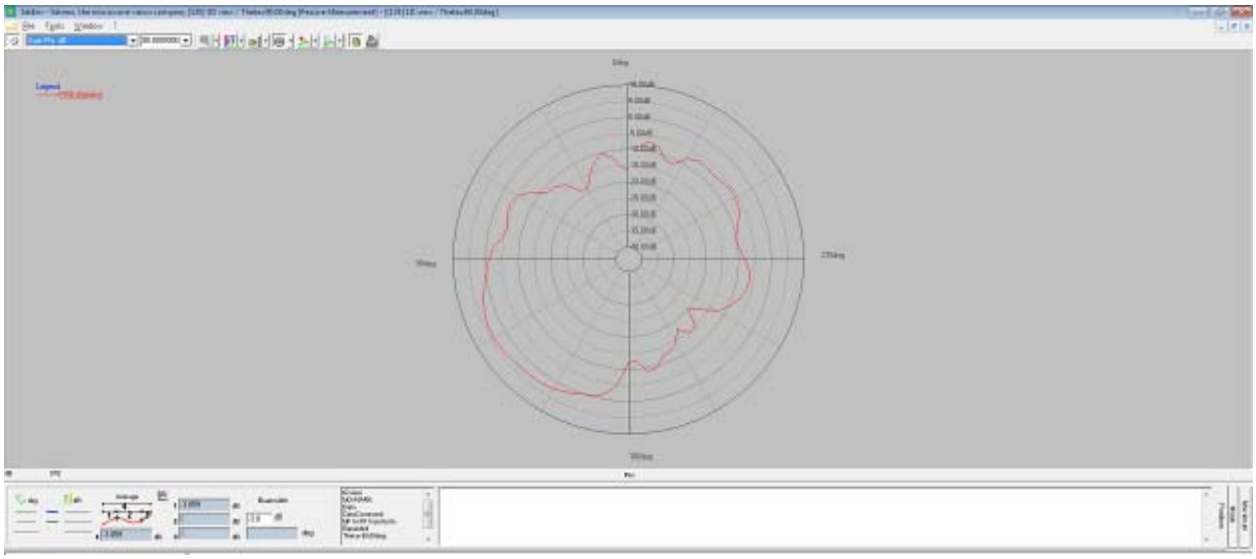
4.4.8 5750MHz



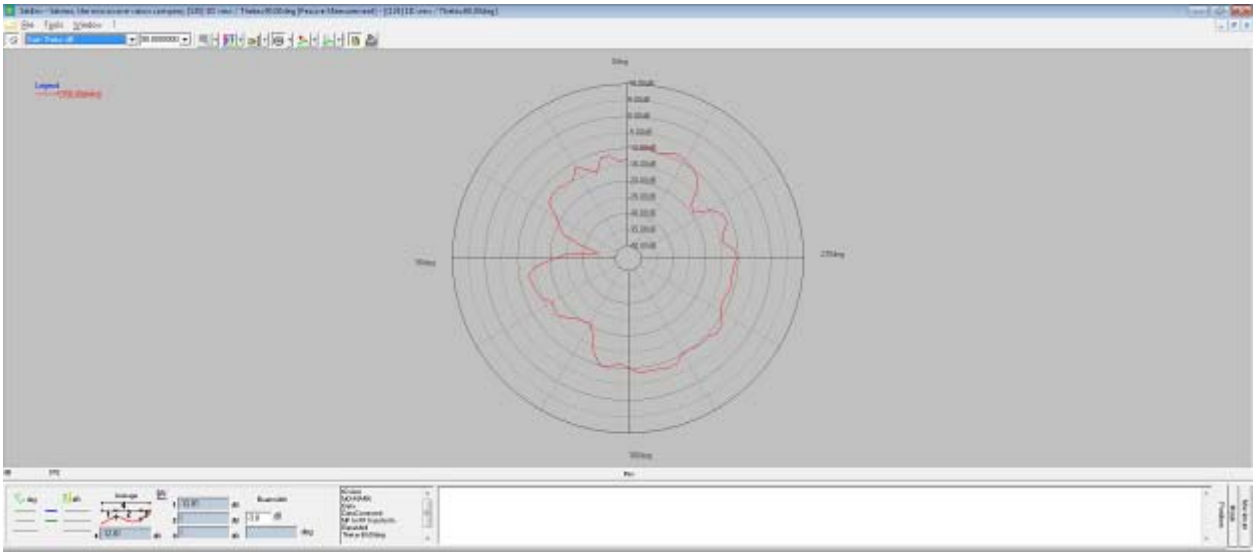
XZ-Phi



XZ-Theta

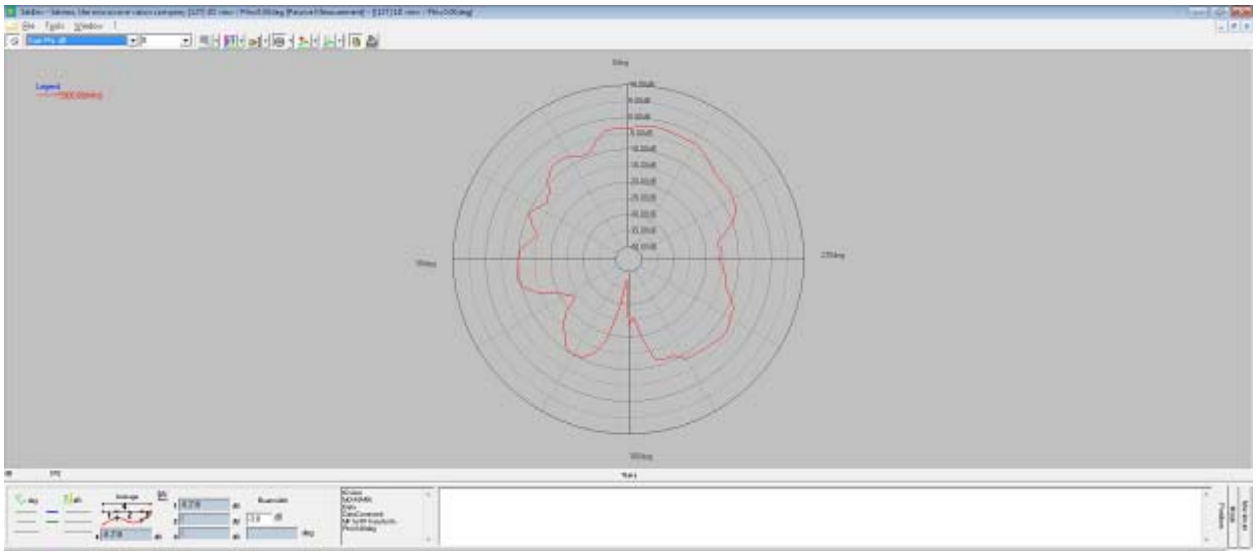


XY-Phi

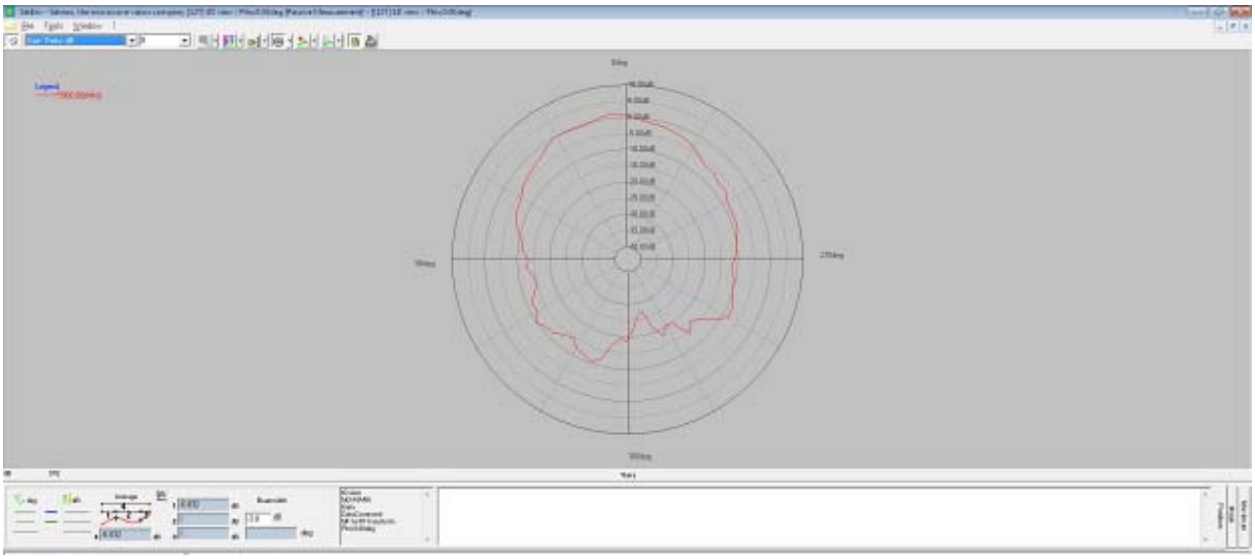


XY-Theta

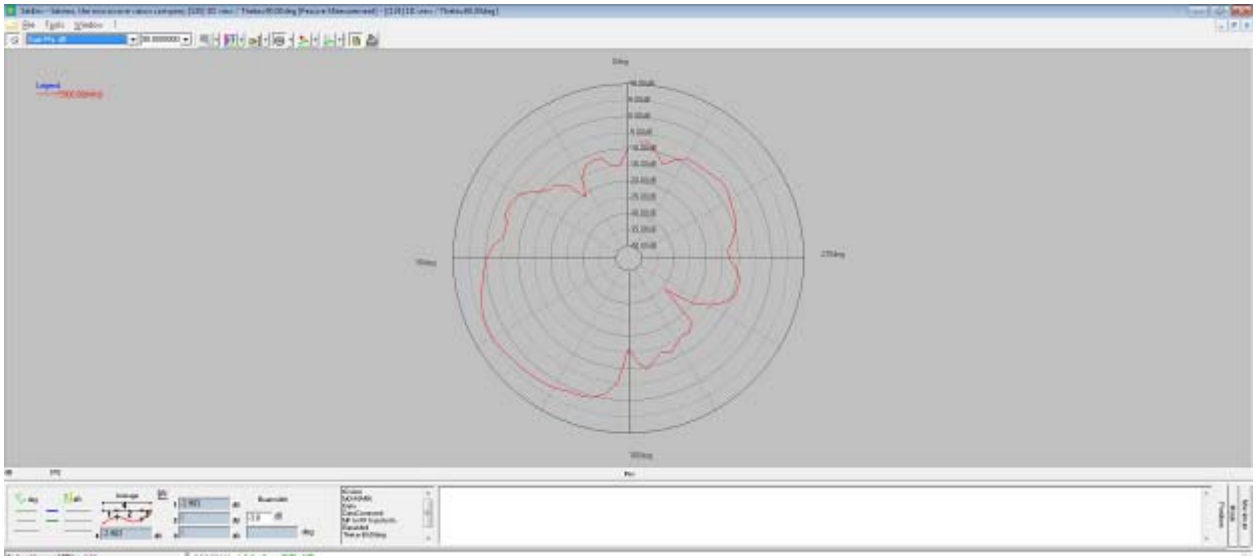
4.4.9 5900MHz



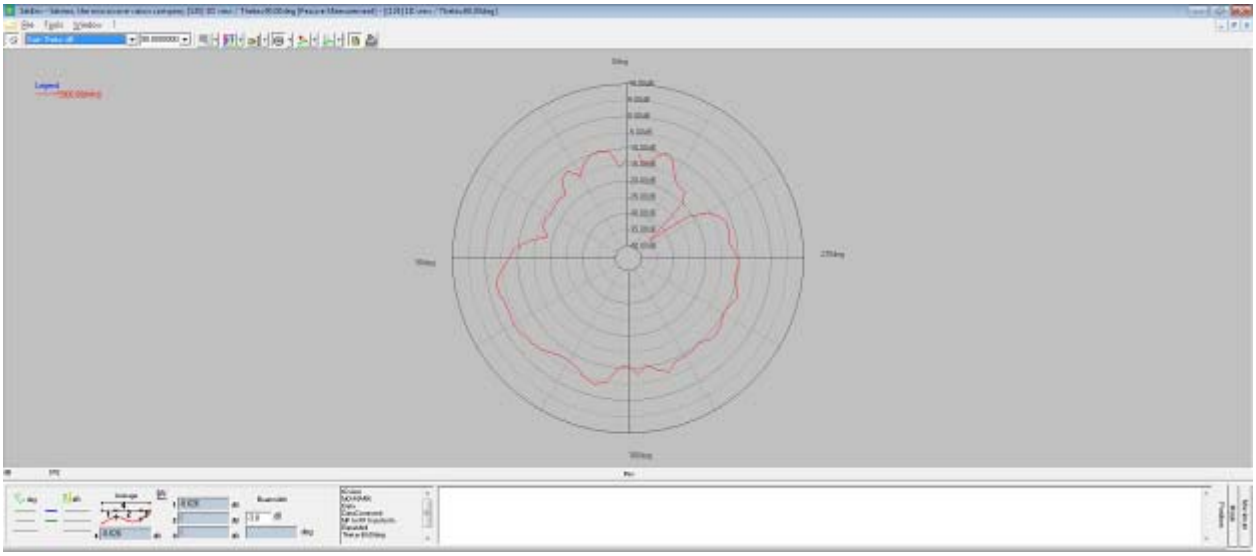
XZ-Phi



XZ-Theta



XY-Phi



XY-Theta

3D total Peak Gain & Efficiency

Frequency	Ant_1 (dB)	Ant_2 (dB)
2400 MHz	-15.2	-13.3
2450 MHz	-12.9	-16.0
2500 MHz	-14.1	-16.5
4900 MHz	-22.9	-17.1
5150 MHz	-23.1	-22.3
5350 MHz	-16.8	-26.6
5550 MHz	-15.4	-22.8
5750 MHz	-12.3	-12.9
5900 MHz	-10.2	-14.2

Frequency	Ant 1		Ant 2	
	Peak Gain (dBi)	Efficiency (%)	Peak Gain (dBi)	Efficiency (%)
2400MHz	2.1	61%	2.5	64%
2450MHz	1.6	62%	1.9	61%
2500MHz	1.7	63%	1.9	64%
4900MHz	4.1	71%	5.0	55%
5150MHz	4.4	73%	4.2	55%
5350MHz	4.5	72%	5.7	61%
5550MHz	4.4	66%	4.8	55%
5750MHz	4.9	63%	4.1	48%
5900MHz	4.5	63%	5.2	45%