WHA YU INDUSTRIAL CO., LTD.
No. 326 Sec 2. Kung Tao 5 Road,
Hsin Chu City, Taiwan

Antenna Test Report

Specifications

Electrical		
Item	**Specification**	**Note**
System Vender Part Number	2172AD0475Z0701	
Component Vender Part Number	C056-511166-A	
Vender Information	譁裕實業股份有限公司	
Frequency Range	2400 – 2500MHz 5150 – 5825MHz	
VSWR	2 : 1 (max)	
Input Impedance	50 ohm	
Polarization	Linear (Vertical or Horizontal)	
Gain(Peak gain)	2400 – 2500MHz 3dBi 5150 – 5825MHz 4dBi	
Mechanical		
Dimensions	88 ㎜ * 88㎜ *0.8 ㎜	
Connector	I-PEX	
Cable Type	1.13mm	
Operating Temperature	-10°C ~60°C	
Storage Temperature	-10°C ~70°C	

THE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

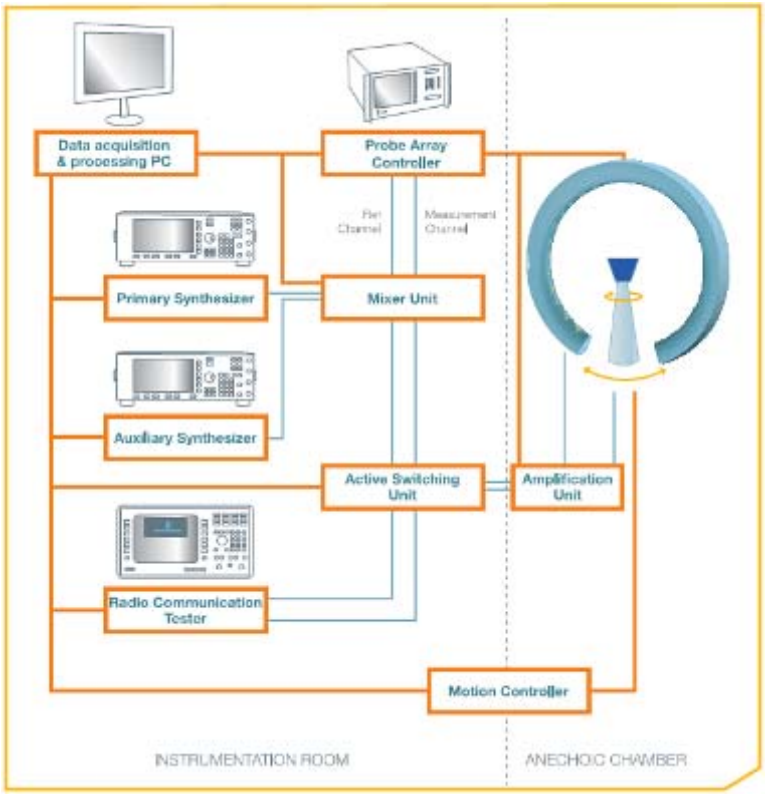
3.Gain & Patterns test results

3.1 Lab information

- Lab name：Satimo
- Address ：No.326 Sec.2, Kung Tao 5 Road, HsinChu City, Taiwan
- Certification：none (Satimo system certification: CTIA, 3GPP, Wi-Fi alliance and WiMAX Forum)
- Size (LxWxH)：5m x 5m x 5m
- Isolation level：>100dB
- Normal applications：Antenna radiation pattern measurement, OTA performance testing.
- Frequency measurement range：0.4 to 6 GHz
- EUT scanning method：conical cut method
- Measurement distance：1.6m
- Measurement Antenna specification (for θ and Φ polarization each)：dual polarization Antenna for 0.4 to 6.0 GHz frequency range

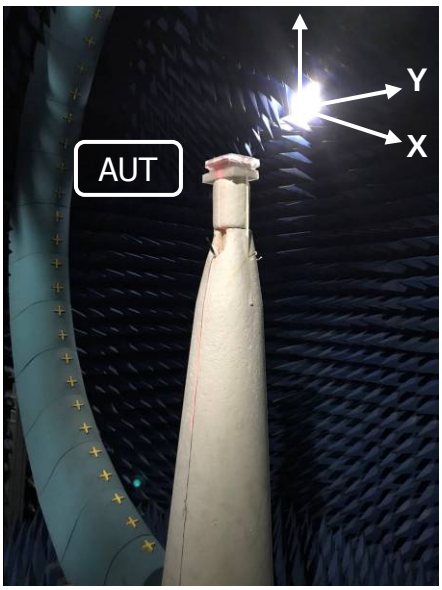
0.4 to 6.0 GHz probe

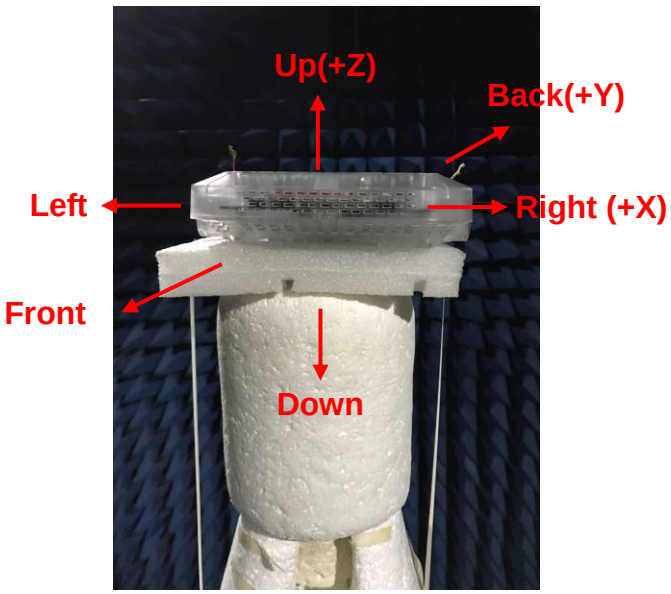
- Equipment list：



4.Gain & Patterns test results

4.1 Measurement setting





	XY	YZ	XZ
0°	Right	Up	Up
90°	Back	Back	Right
180°	Left	Down	Down
270°	Front	Front	Left

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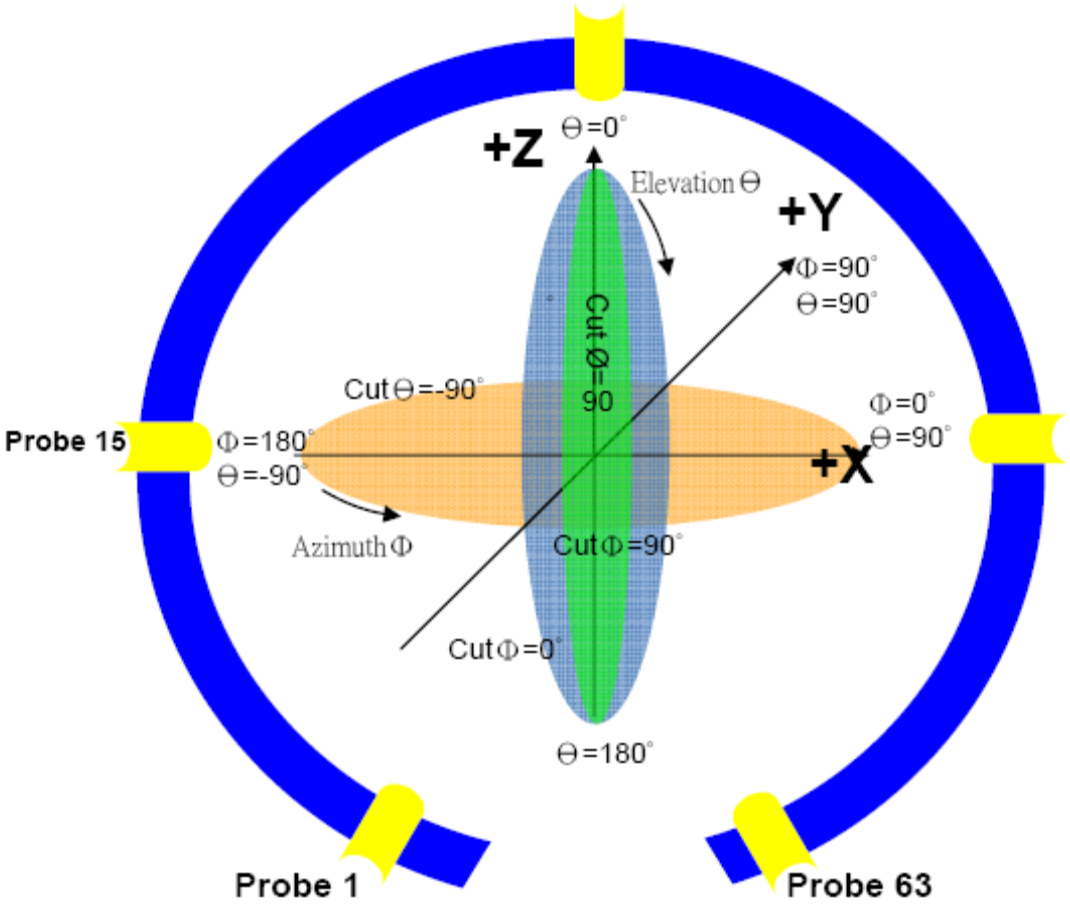
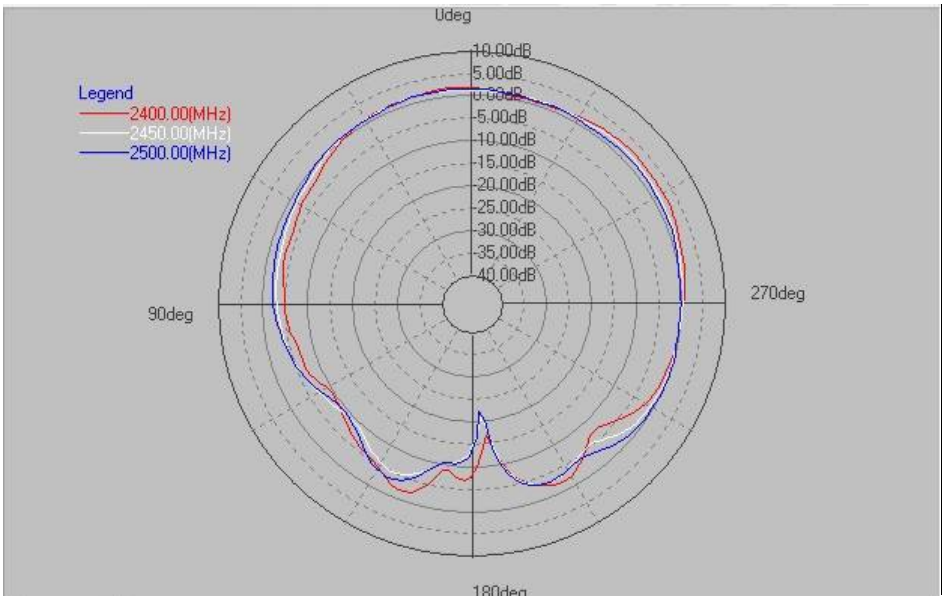
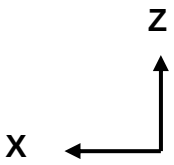


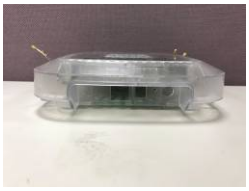
	θ	φ
Total angle	175°	360°
How many angle scan one point	5°	5°
Total scan point	36	73

4.2 2D patterns

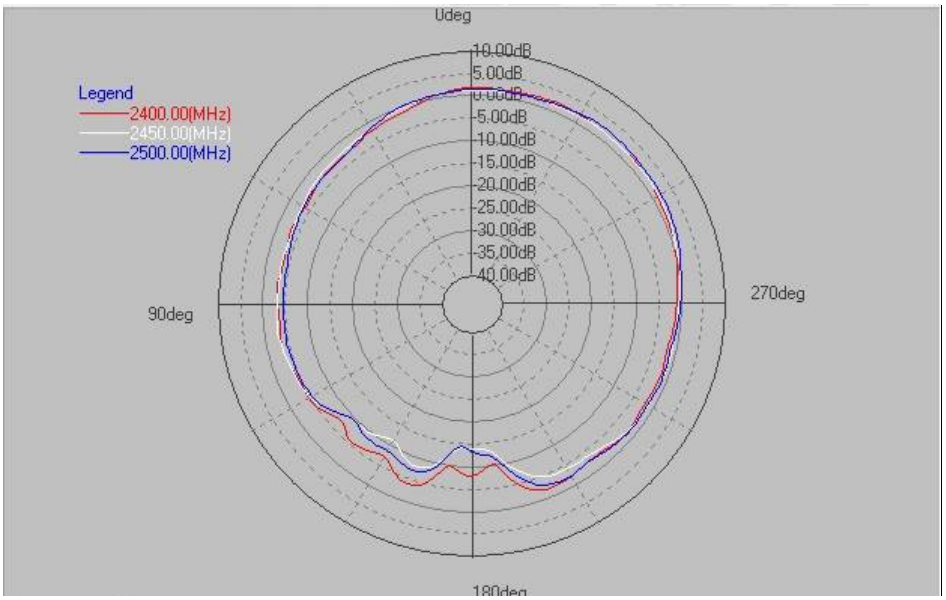
4.2.1 Ant.1

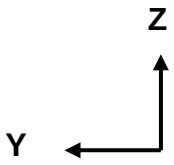




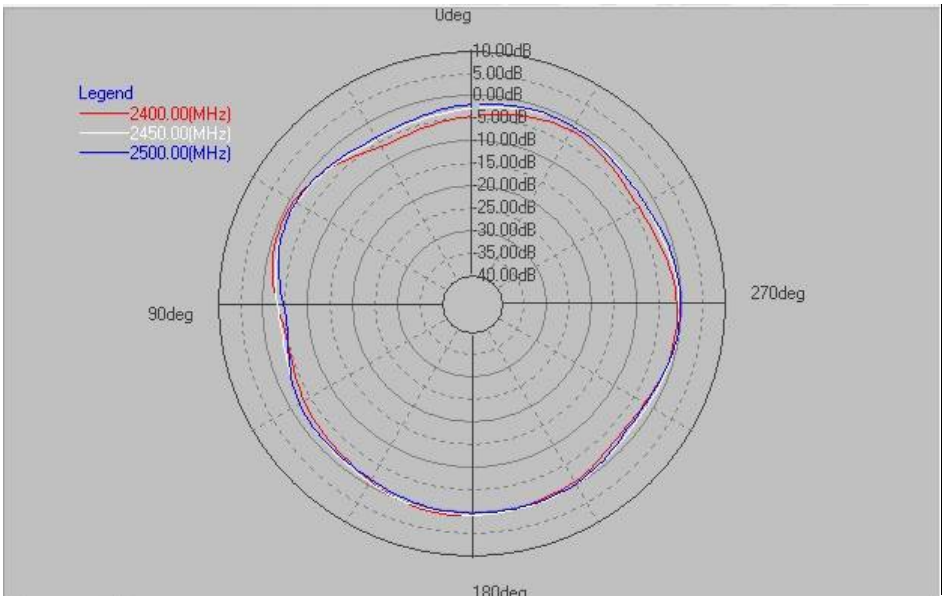


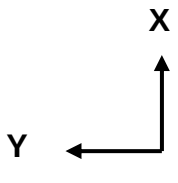
X-Z Plane (E-total)





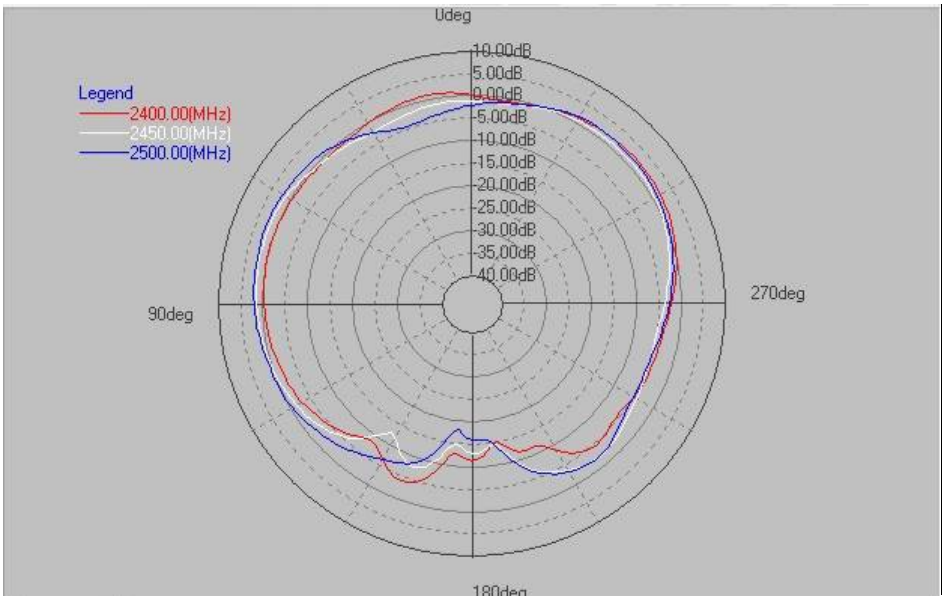
Y-Z Plane (E-total)

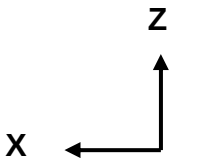




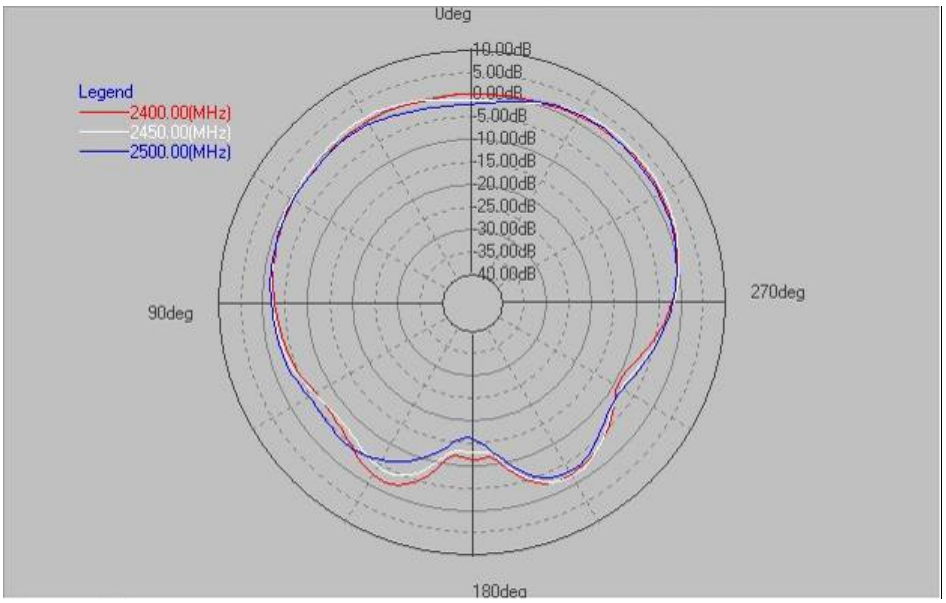
X-Y Plane (E-total)

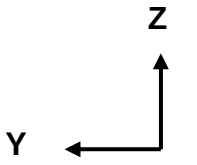
4.2.2 Ant.2



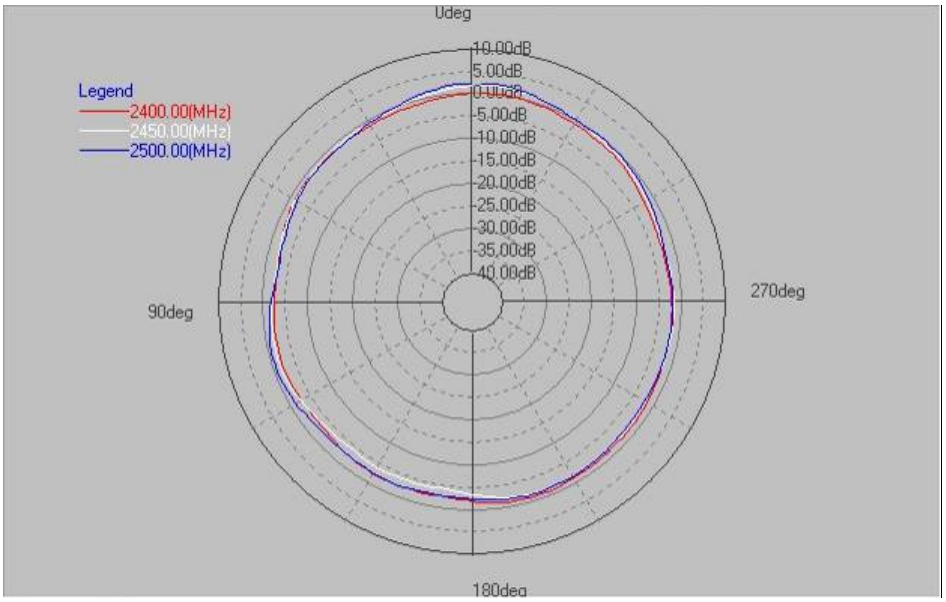


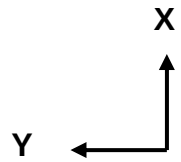
X-Z Plane (E-total)





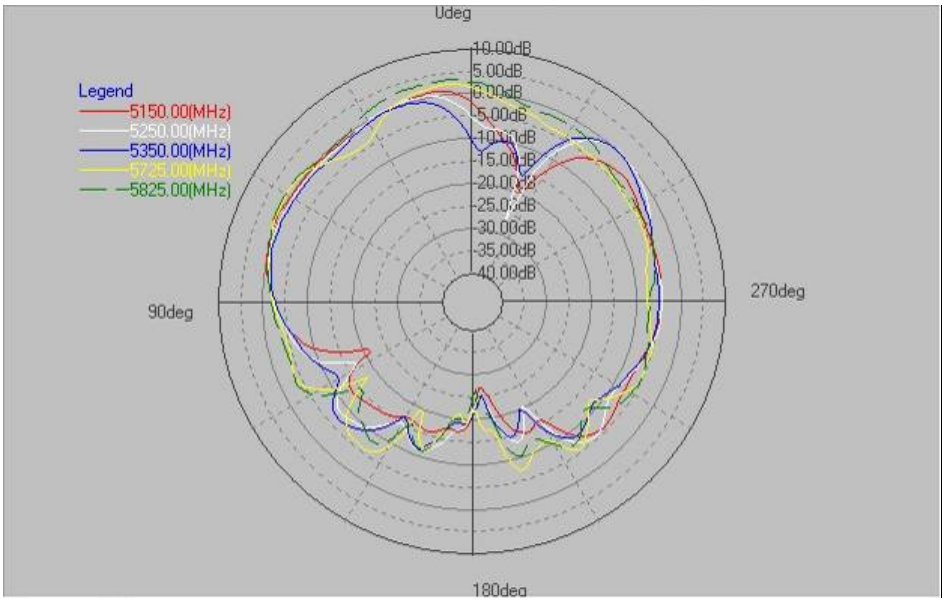
Y-Z Plane (E-total)

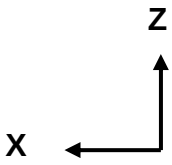




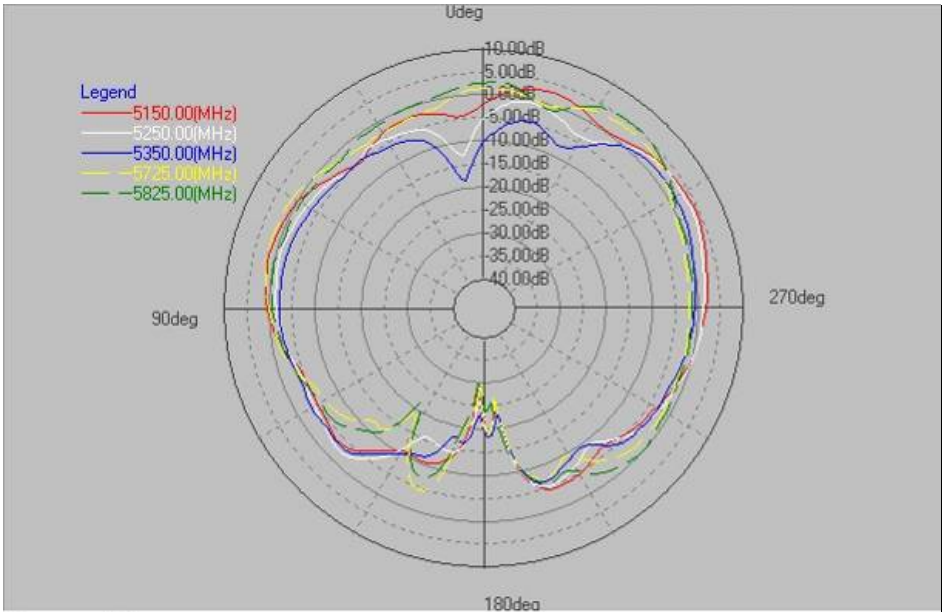
X-Y Plane (E-total)

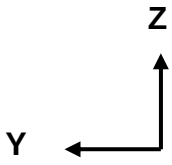
4.2.3 Ant.3



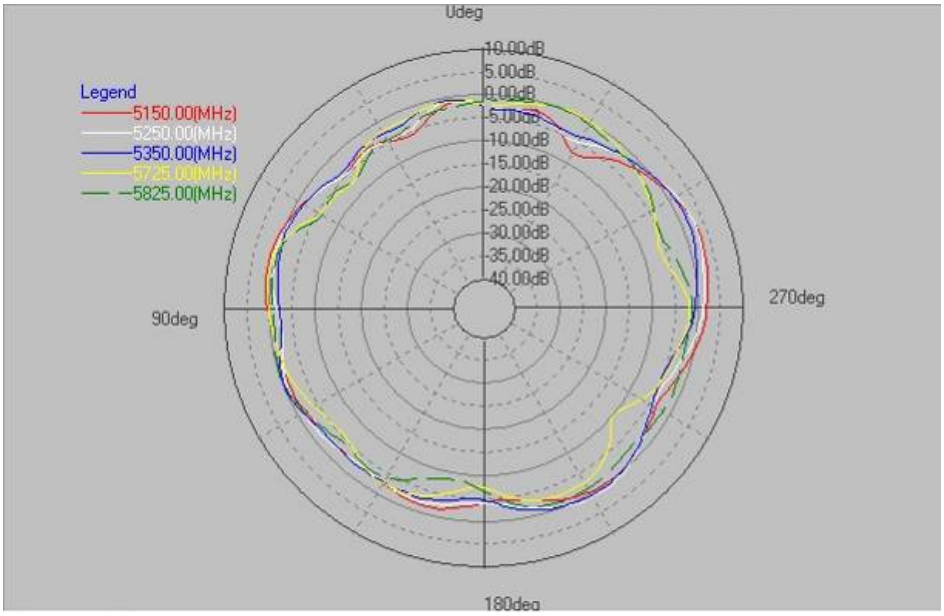


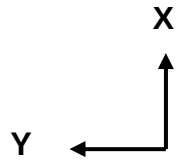
X-Z Plane (E-total)





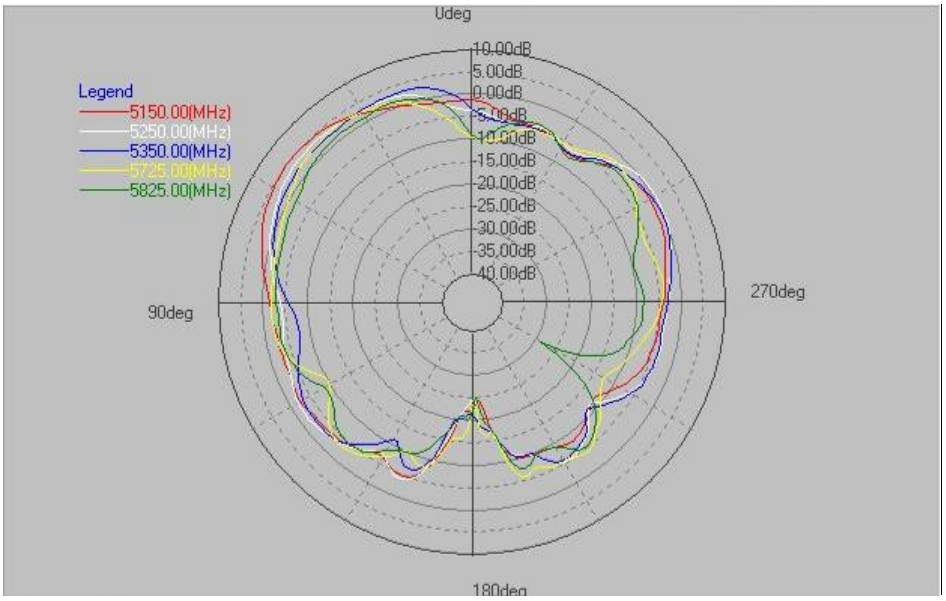
Y-Z Plane (E-total)

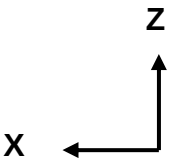




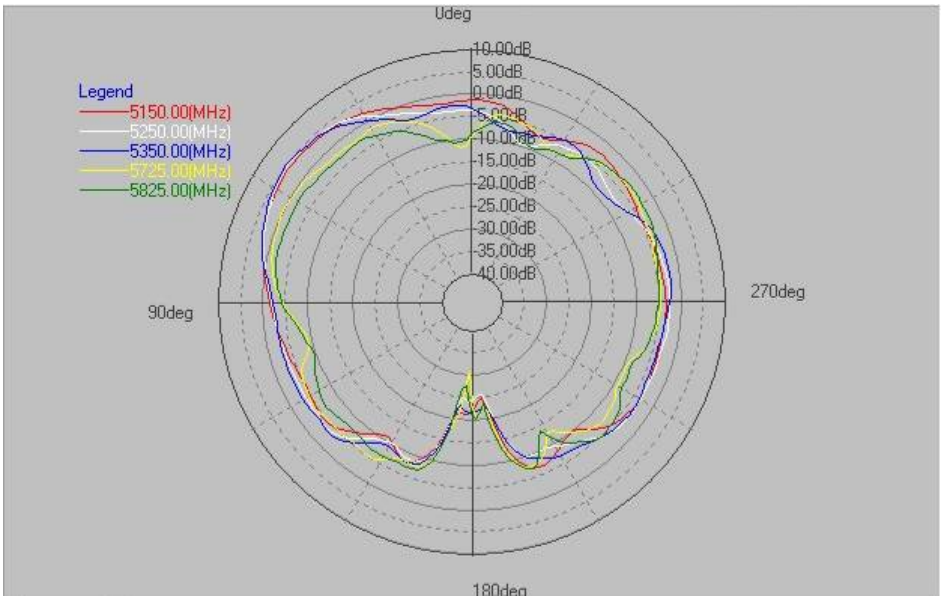
X-Y Plane (E-total)

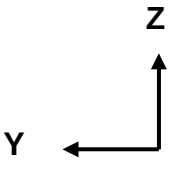
4.2.4 Ant.4



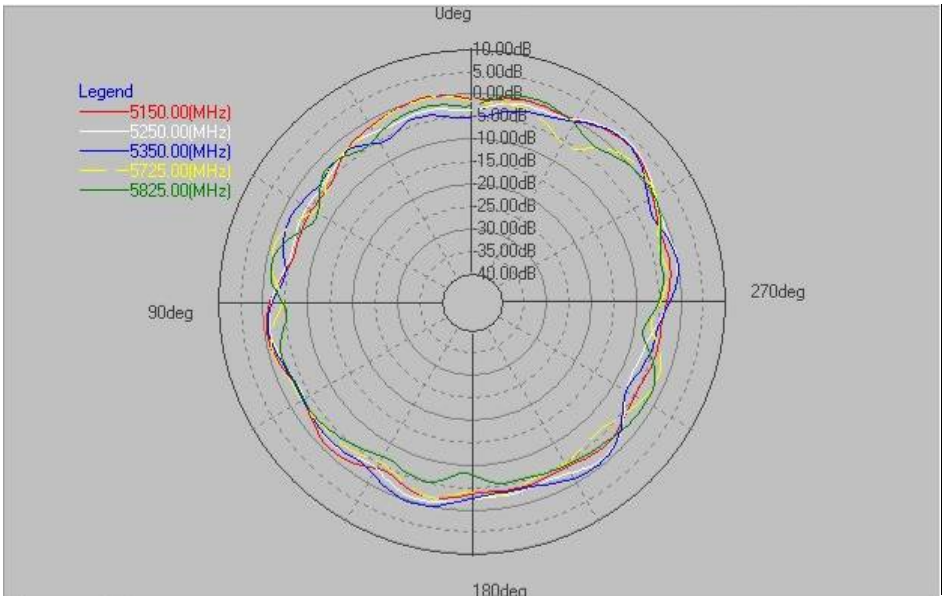


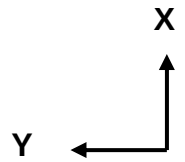
X-Z Plane (E-total)





Y-Z Plane (E-total)





X-Y Plane (E-total)

.5 Summary

5.1 D total Peak Gain & Efficiency

Frequency	Ant.2G		Ant.2G2	
	Peak Gain (dBi)	Efficiency (%)	Peak Gain (dBi)	Efficiency (%)
2400MHz	2.7	70.90%	2.4	73.39%
2450MHz	2.8	72.40%	3.0	73.41%
2500MHz	2.4	74.72%	2.4	73.88%

Frequency	Ant.5G1		Ant.5G2	
	Peak Gain (dBi)	Efficiency (%)	Peak Gain (dBi)	Efficiency (%)
5150MHz	3.4	65.31%	4.0	69.49%
5250MHz	3.6	66.19%	3.6	67.78%
5350MHz	4.0	60.07%	3.8	65.78%
5725MHz	3.1	52.75%	3.8	58.95%
5825MHz	3.6	65.62%	3.7	52.16%