



**MAG.LAYERS**

# **Mag.Layers Scientific-Techinics**

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**CUSTOMER :CastleNet**

**PART NO. :LTA-6025-2G4S3-B1(Original matching)**

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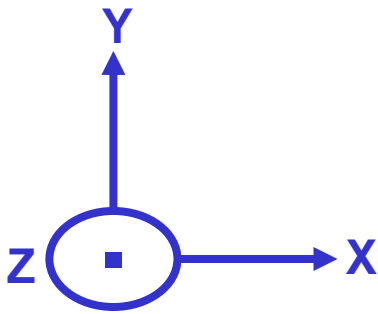
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## 1.Experimental



- Measurement Item :

- a. Return loss
- b. Radiation pattern

- Return Loss :

- a. Instrument : vector network analyzer – Agilent N5230A
- b. Calibration method : SOLT

- 3D Radiation Pattern :

- a. Instrument: Satimo StarLab

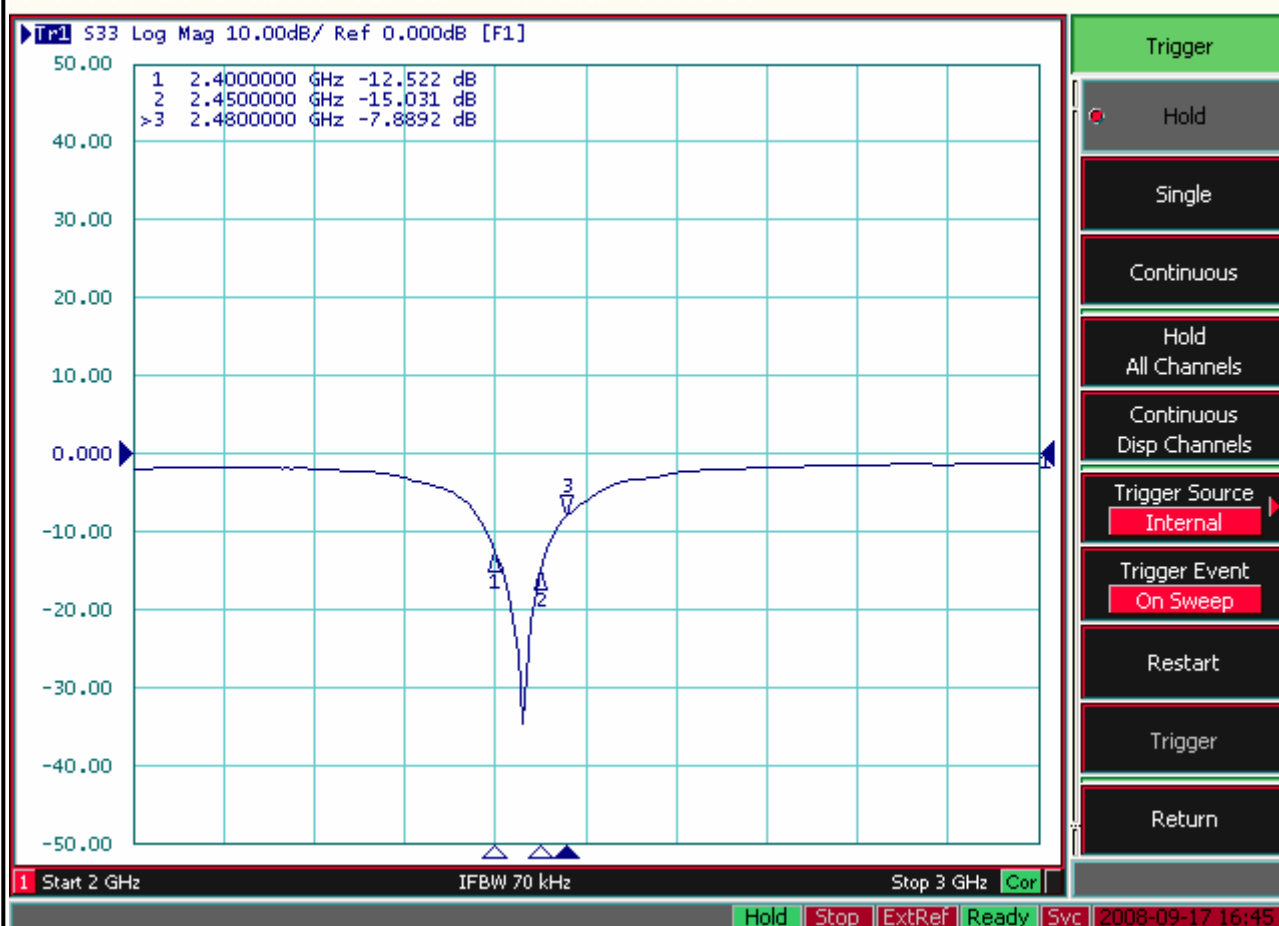


## 2. Antenna Matching Circuit Diagram





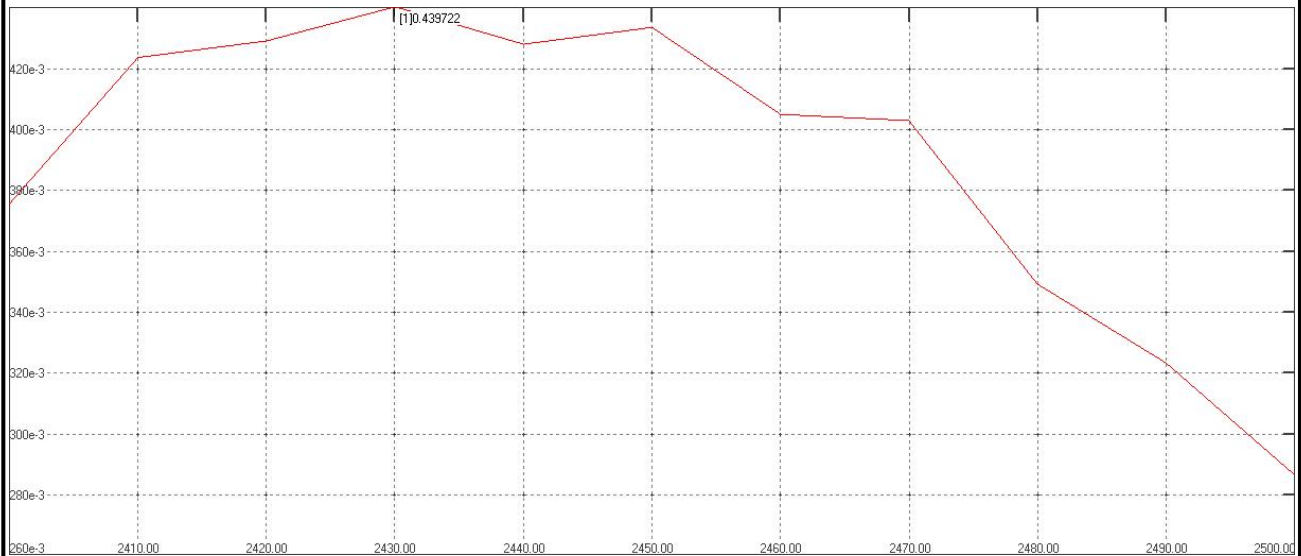
### 3. Return loss



**VSWR<2 Band Width=80MHz**



## 4. Antenna Efficiency



Maximum Efficiency at 2.4G~2.48G:43.9%

Minimum Efficiency at 2.4G~2.48G:34.8%



## 5. Measurement Results

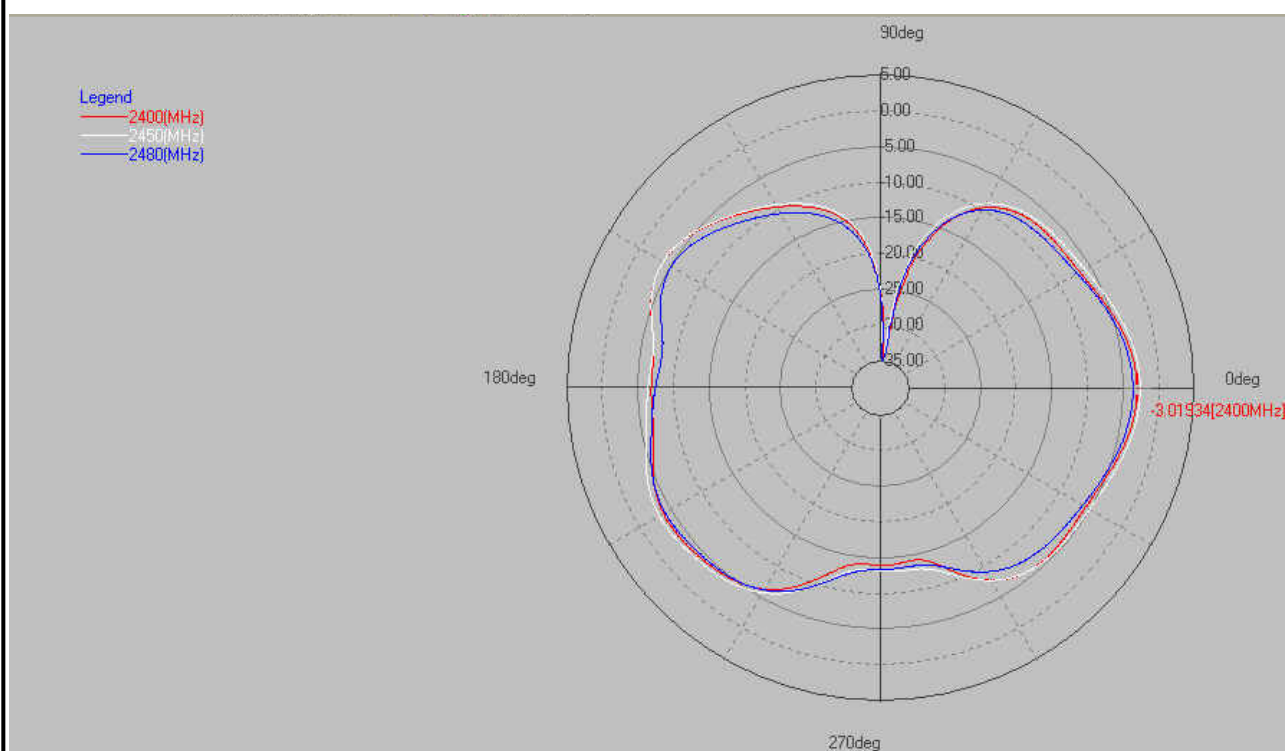
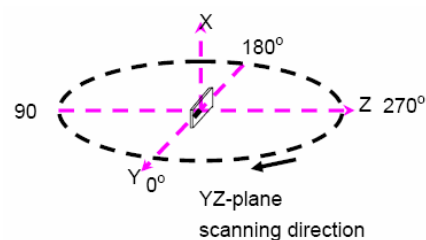
Antenna	Frequency (GHz)	Y-Z Plane					
		Horizontal (dBi)		Vertical (dBi)		Total(dBi)	
		Max Value	Average	Max Value	Average	Max Value	Average
LTA-6025-2G4S3-B1	2.4	-3.02	-6.71	-11.17	-14.96	-2.64	-6.10
	2.45	-2.59	-6.23	-10.64	-13.96	-2.16	-5.56
	2.48	-3.60	-7.27	-11.48	-14.79	-3.13	-6.56
Antenna	Frequency (GHz)	X-Z Plane					
		Horizontal (dBi)		Vertical (dBi)		Total(dBi)	
		Max Value	Average	Max Value	Average	Max Value	Average
LTA-6025-2G4S3-B1	2.4	-10.02	-14.69	-1.83	-2.94	-1.67	-2.66
	2.45	-9.33	-13.55	-1.08	-2.29	-0.48	-1.97
	2.48	-10.54	-14.36	-1.78	-3.23	-1.25	-2.91
Antenna	Frequency (GHz)	X-Y Plane					
		Horizontal (dBi)		Vertical (dBi)		Total(dBi)	
		Max Value	Average	Max Value	Average	Max Value	Average
LTA-6025-2G4S3-B1	2.4	-2.39	-5.69	-14.15	-17.54	-2.20	-5.41
	2.45	-1.56	-5.16	-13.39	-16.79	-1.41	-4.87
	2.48	-2.33	-6.02	-13.48	-17.88	-2.20	-5.74



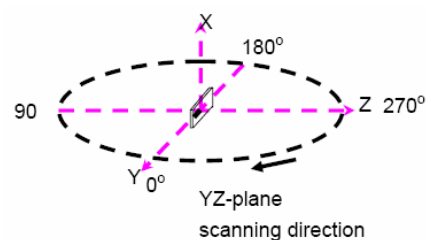
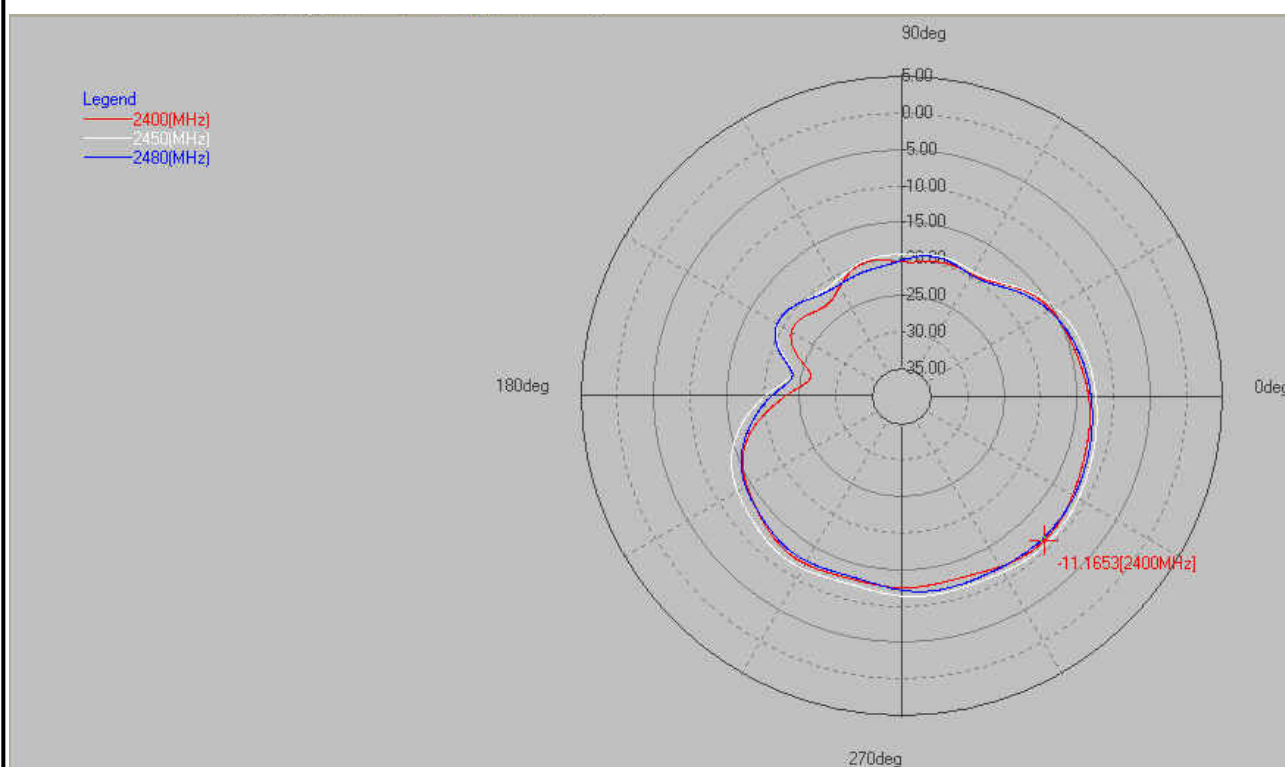
## 6.0 Radiation Patterns (Original)

### Y-Z Plane

### Horizontal Polarization

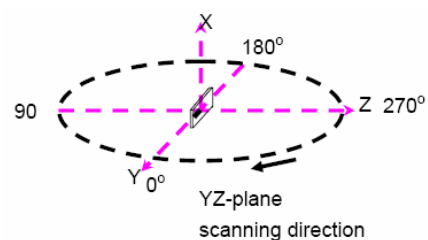
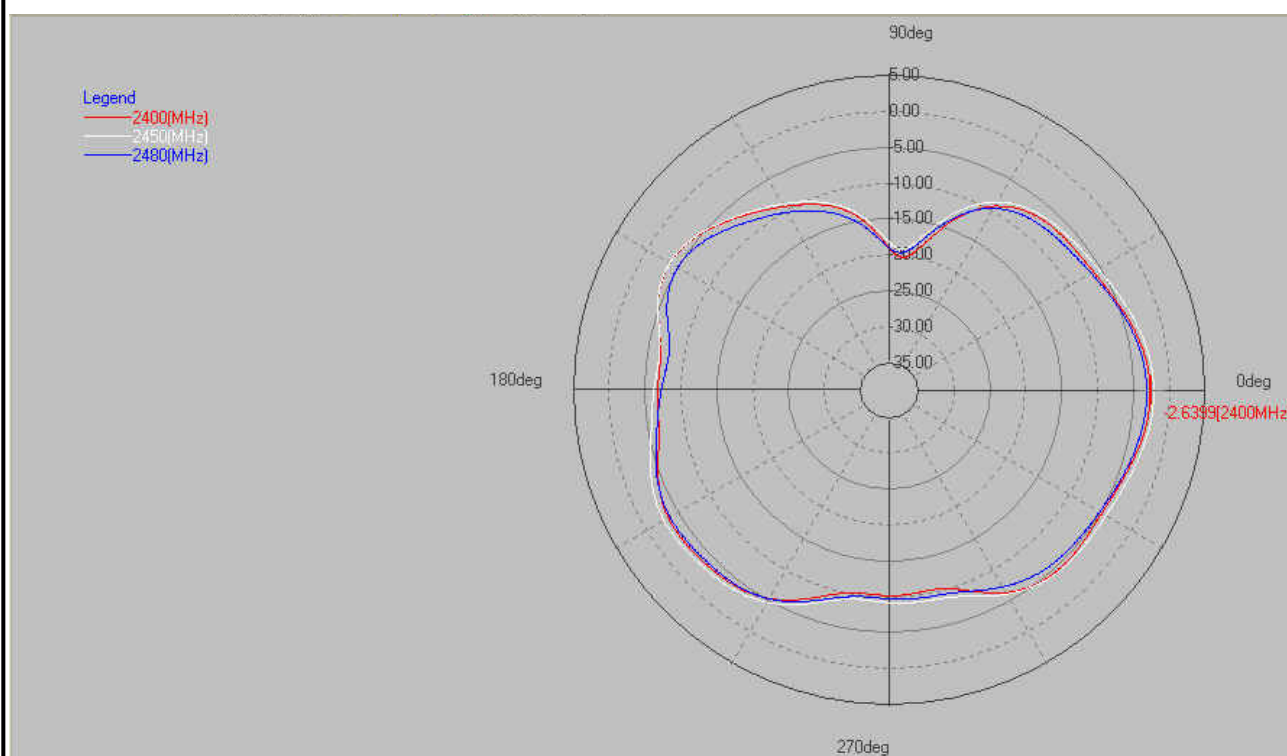


Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-3.02	-6.71
2.45	-2.59	-6.23
2.48	-3.60	-7.27

**Y-Z Plane****Vertical Polarization**

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-11.17	-14.96
2.45	-10.64	-13.96
2.48	-11.48	-14.79



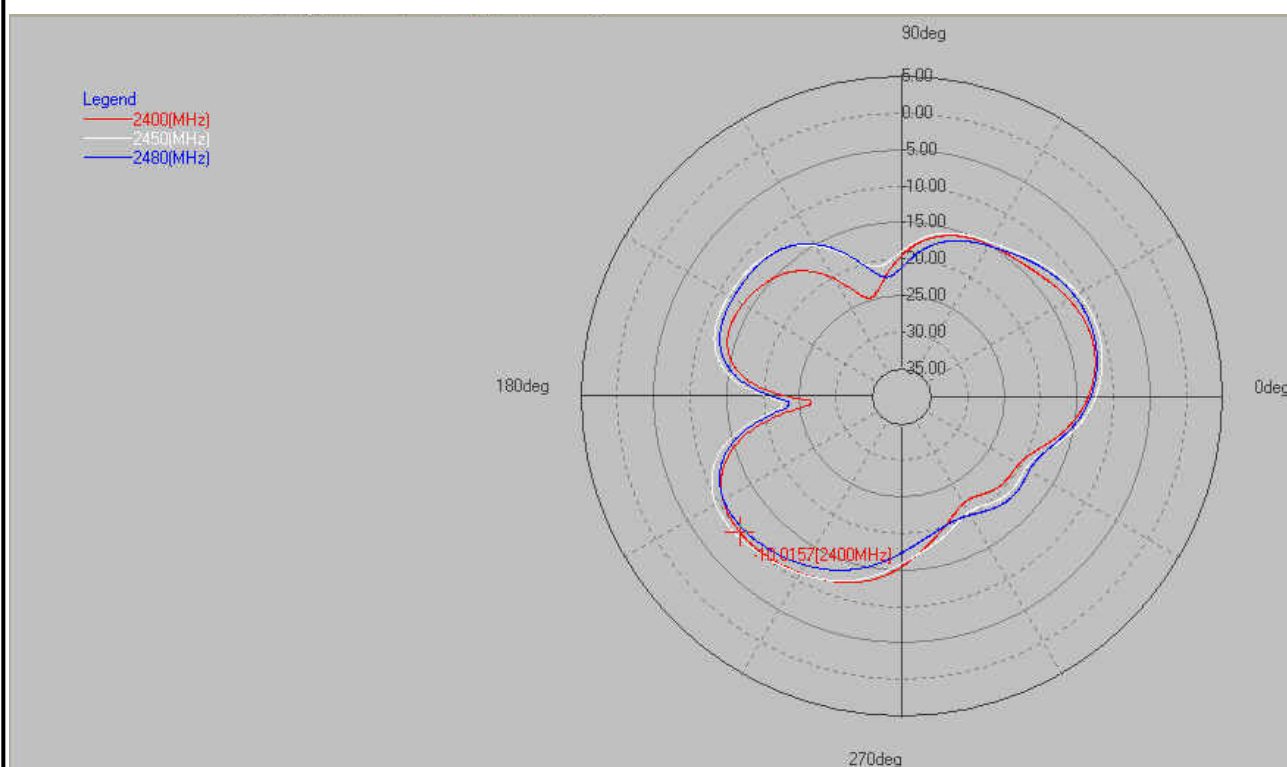
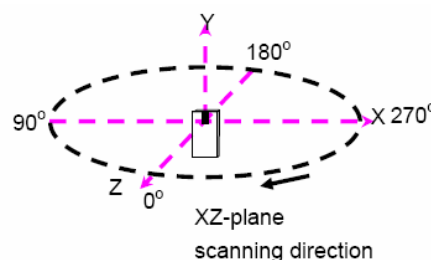
**Y-Z Plane****TOTAL**

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-2.64	-6.10
2.45	-2.16	-5.56
2.48	-3.13	-6.56

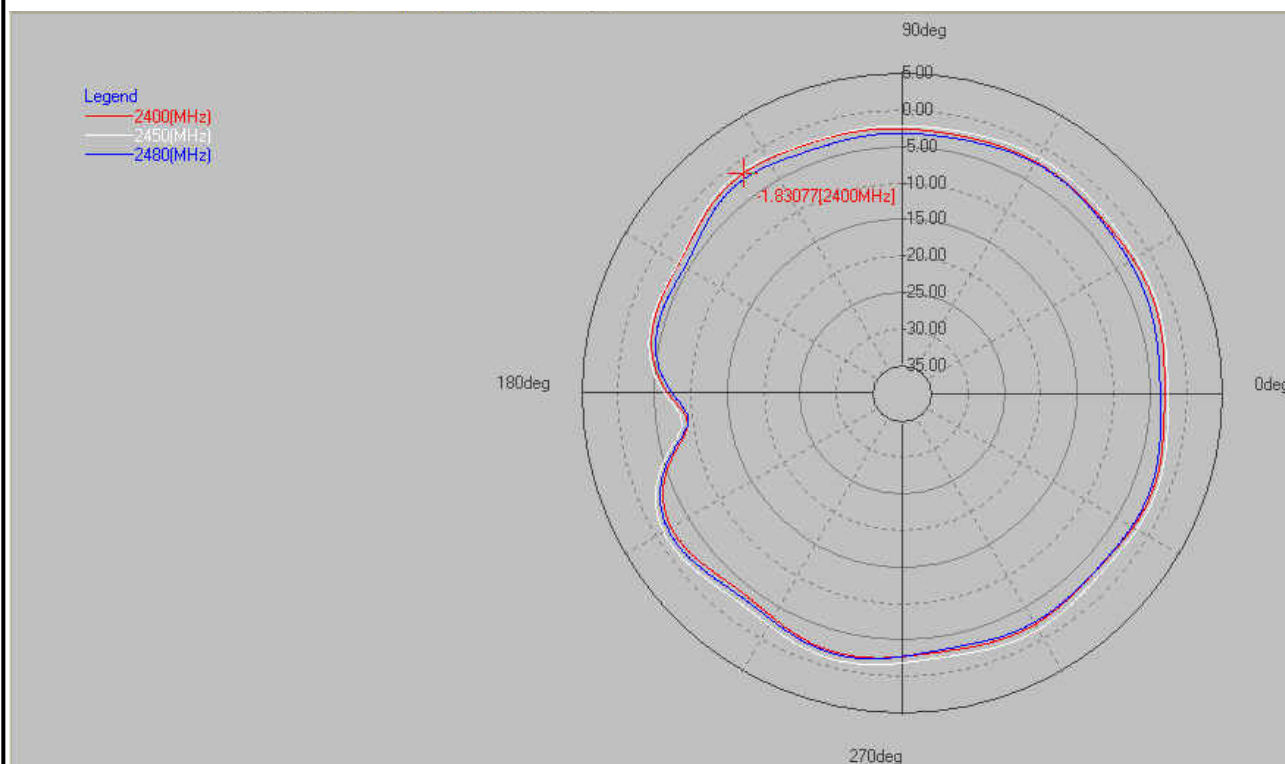
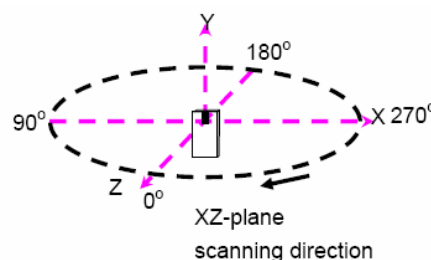


## X-Z Plane

## Horizontal Polarization



Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-10.02	-14.69
2.45	-9.33	-13.55
2.48	-10.54	-14.36

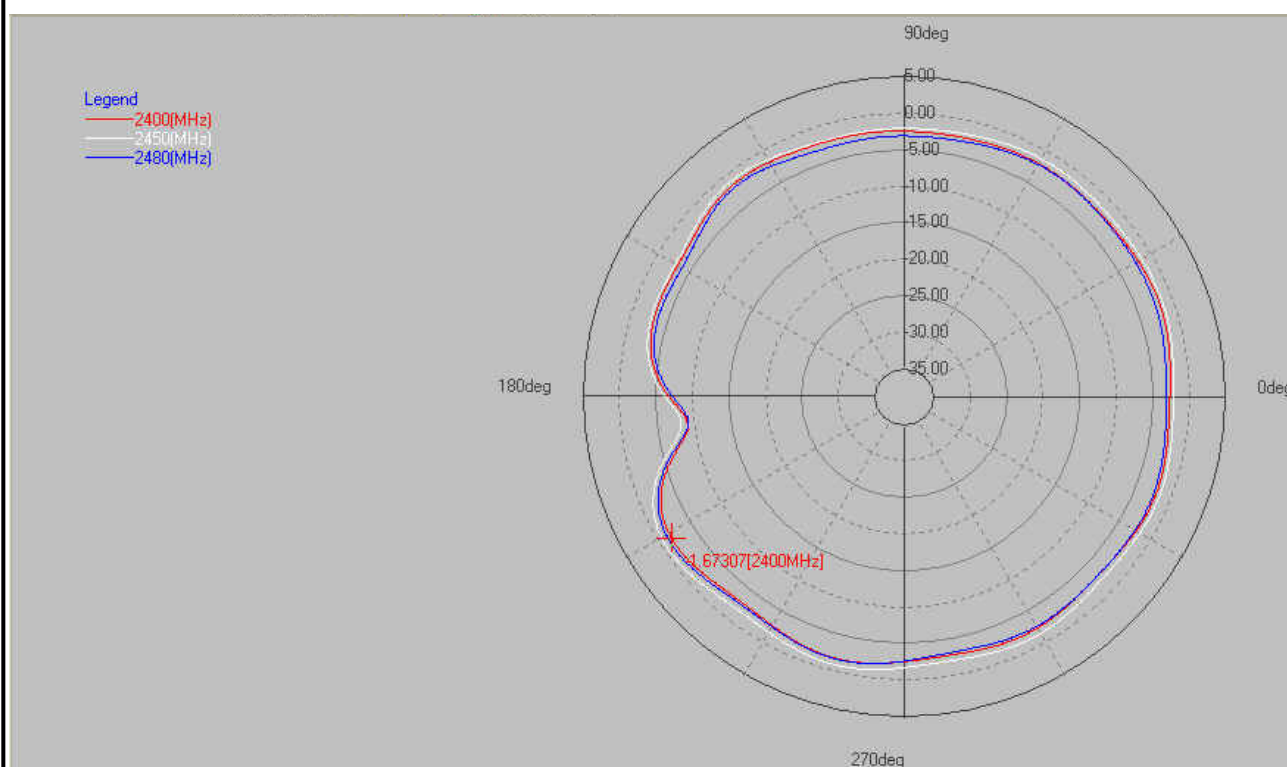
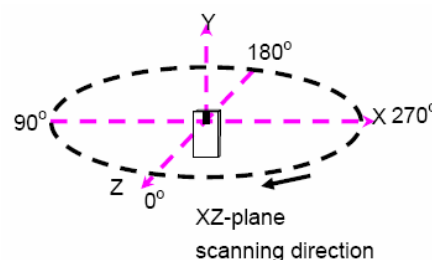
**X-Z Plane****Vertical Polarization**

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-1.83	-2.94
2.45	-1.08	-2.29
2.48	-1.78	-3.23

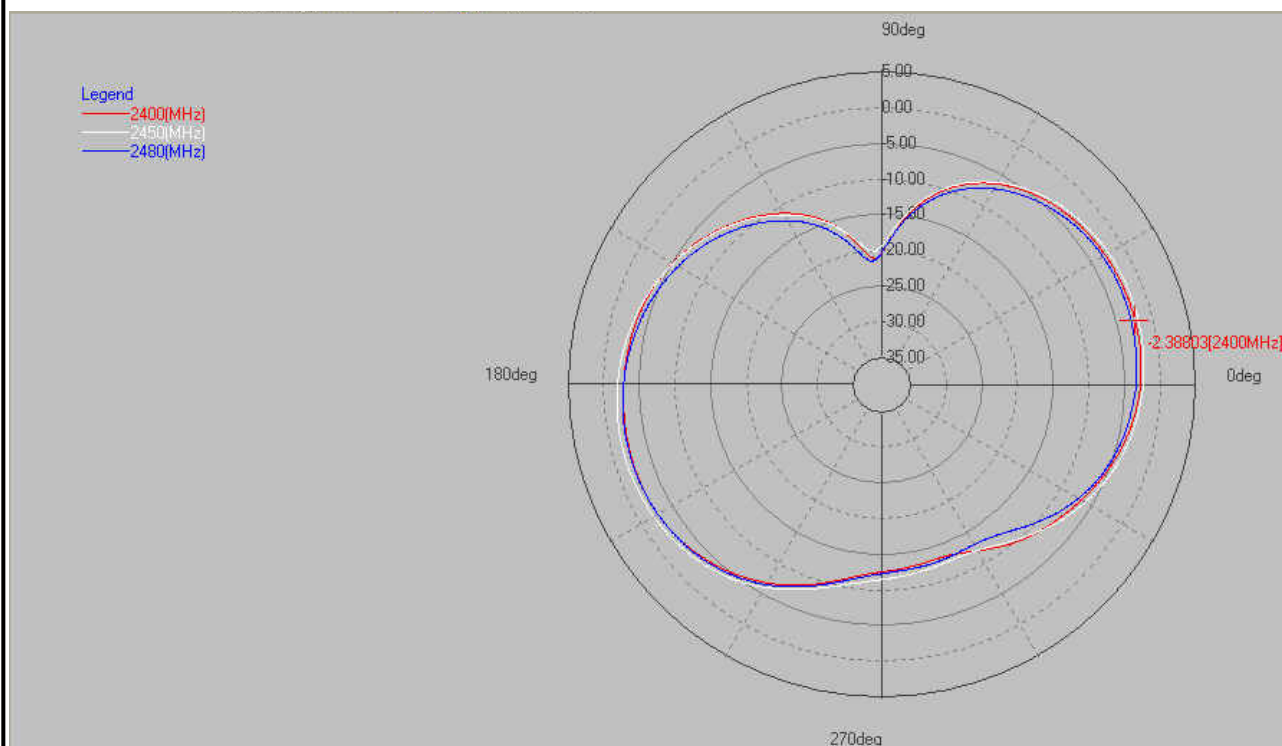
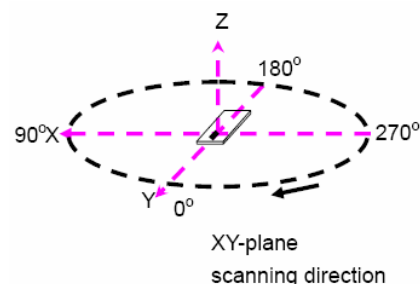


## X-Z Plane

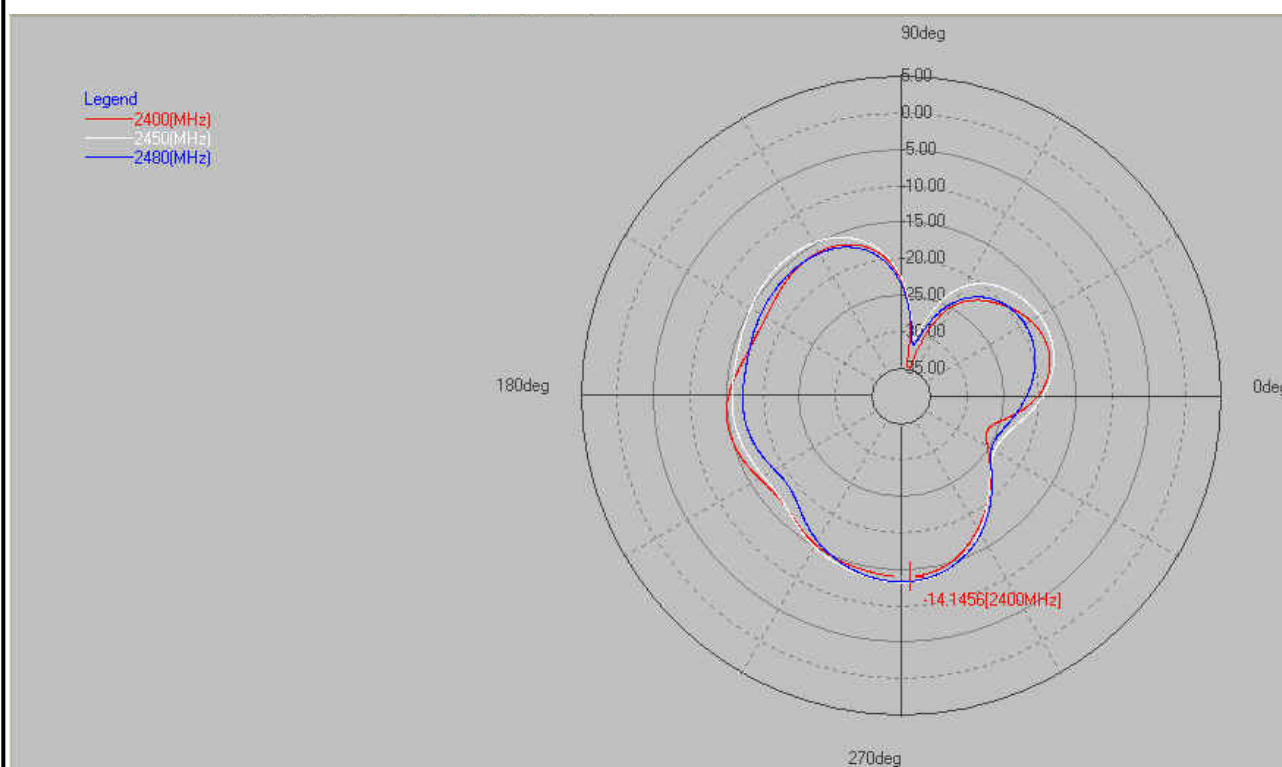
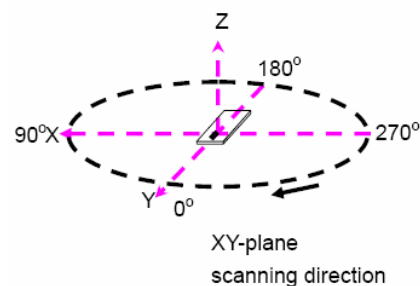
## TOTAL



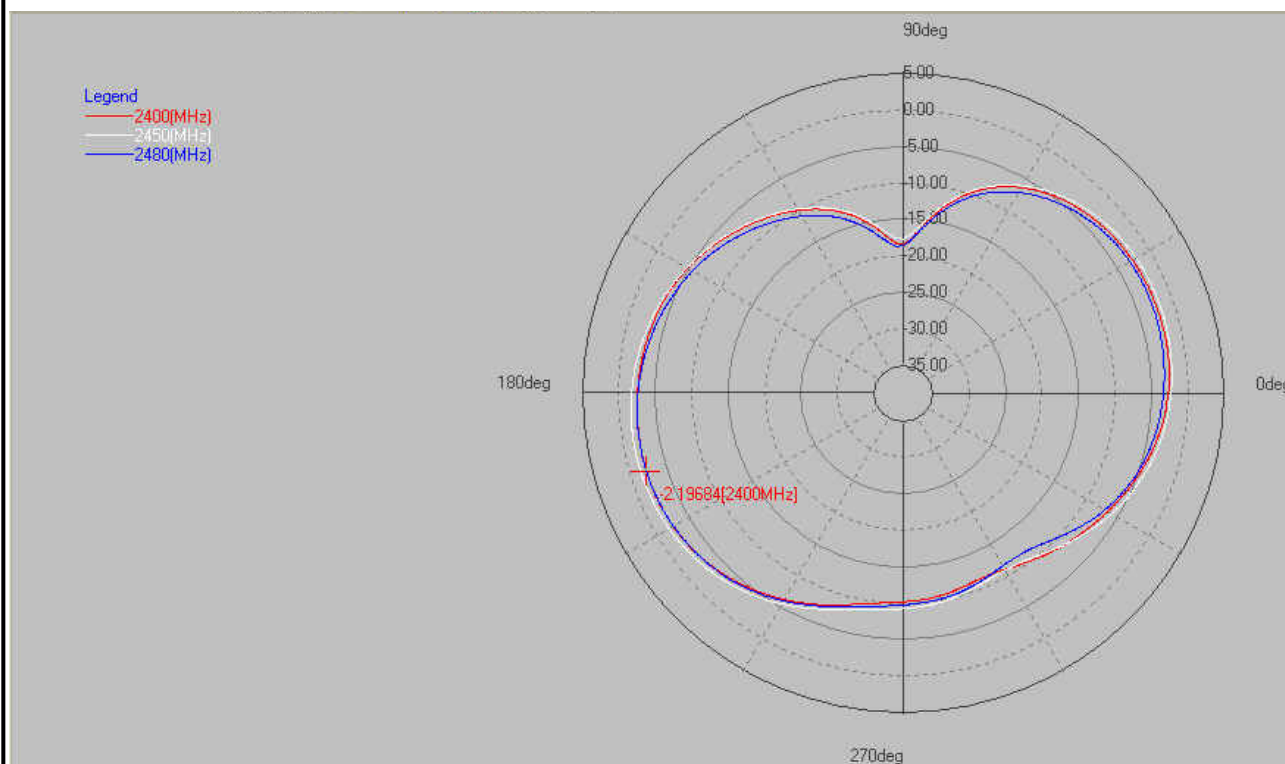
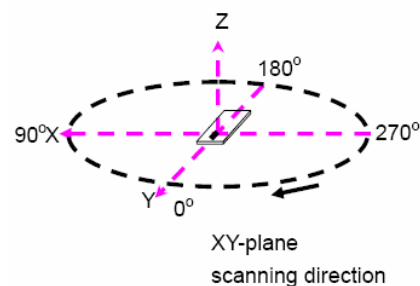
Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-1.67	-2.66
2.45	-0.48	-1.97
2.48	-1.25	-2.91

**X-Y Plane****Horizontal Polarization**

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-2.39	-5.69
2.45	-1.56	-5.16
2.48	-2.33	-6.02

**X-Y Plane****Vertical Polarization**

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-14.15	-17.54
2.45	-13.39	-16.79
2.48	-13.48	-17.88

**X-Y Plane****TOTAL**

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-2.20	-5.41
2.45	-1.41	-4.87
2.48	-2.20	-5.74