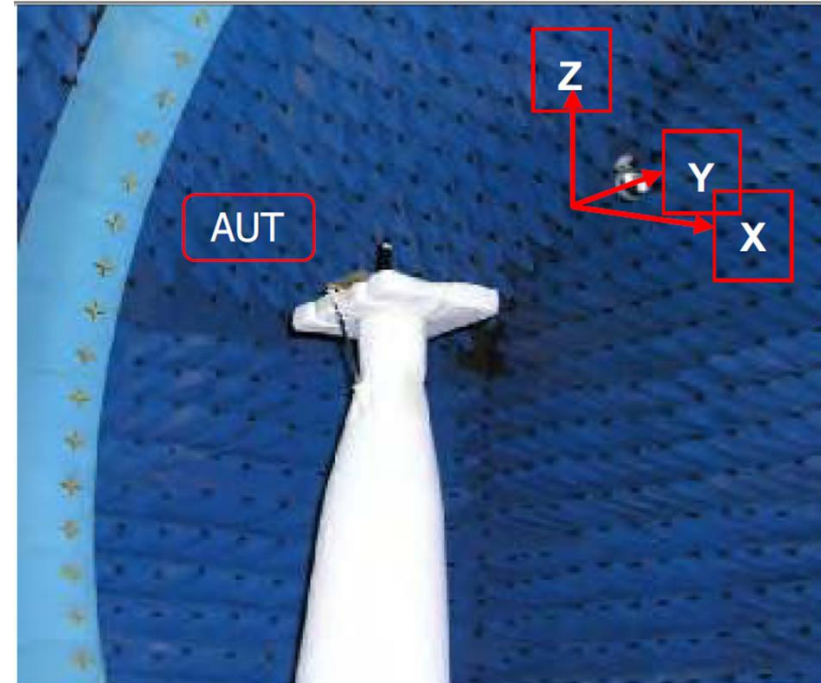
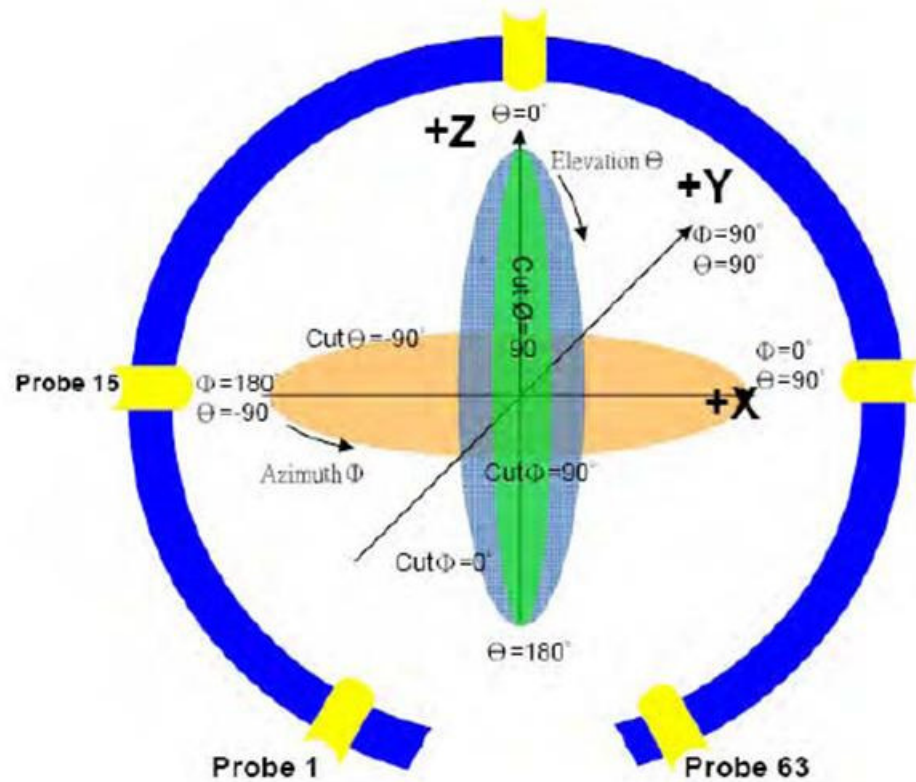


Antenna Report

Outline

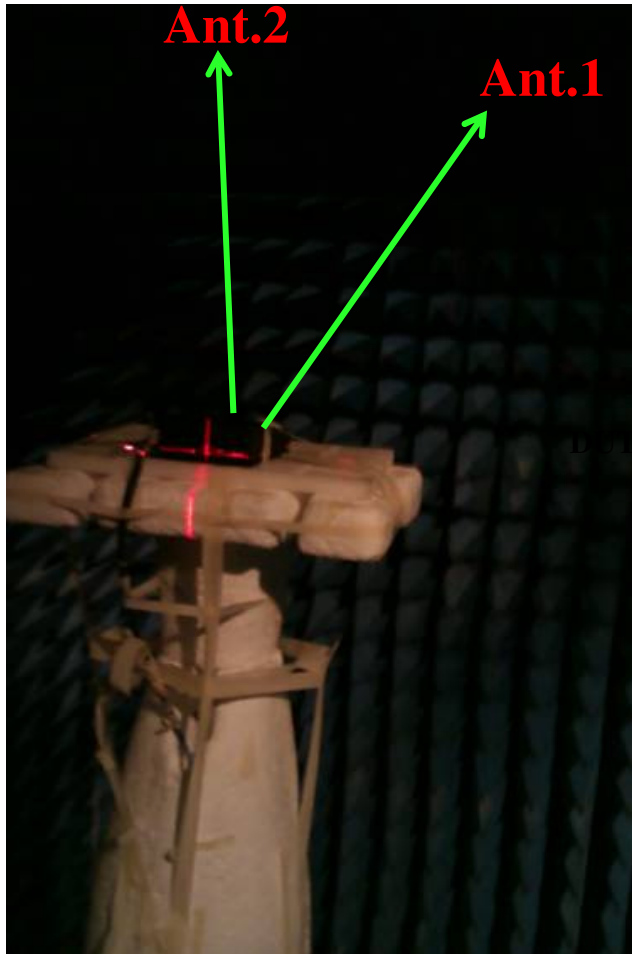
- **Satimo chamber 3D Chamber**
- **DUT direction definition**
- **Antenna with metal frame**
- **Conclusion**

Satimo 3D Chamber :



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

DUT direction definition :



Measurement
(side view)



DUT direction definition :

Z (top)

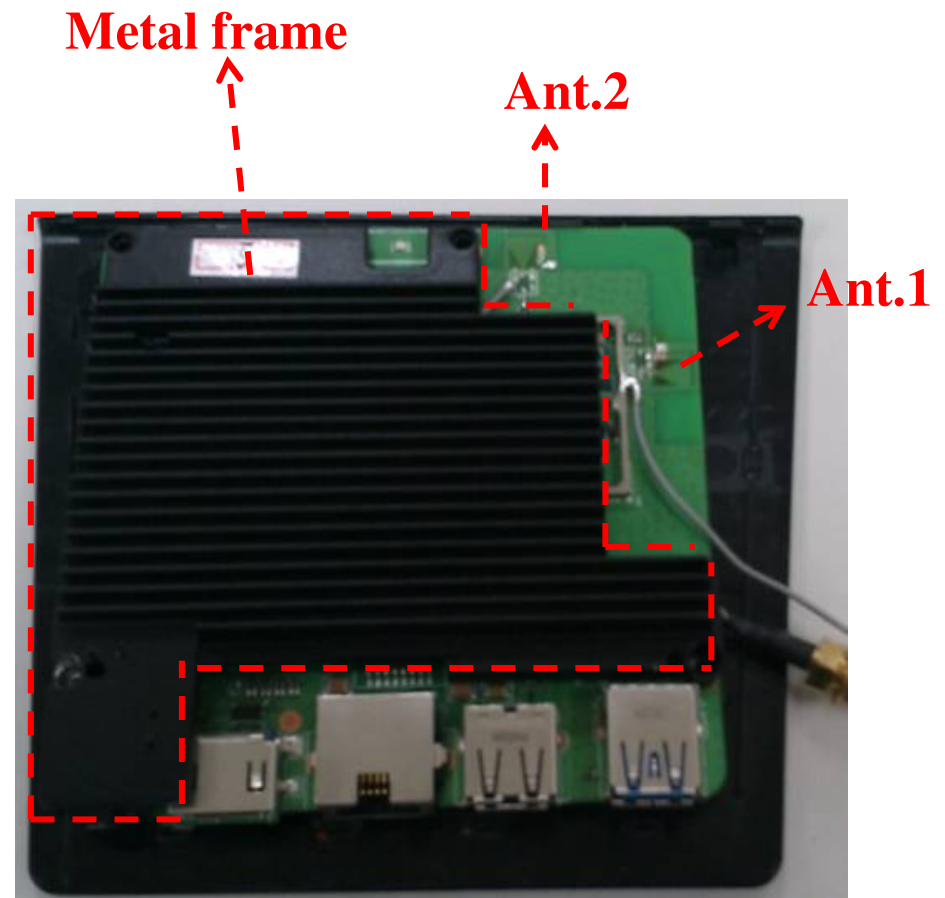
Y (Front)

X (Right)

-Y (Back)

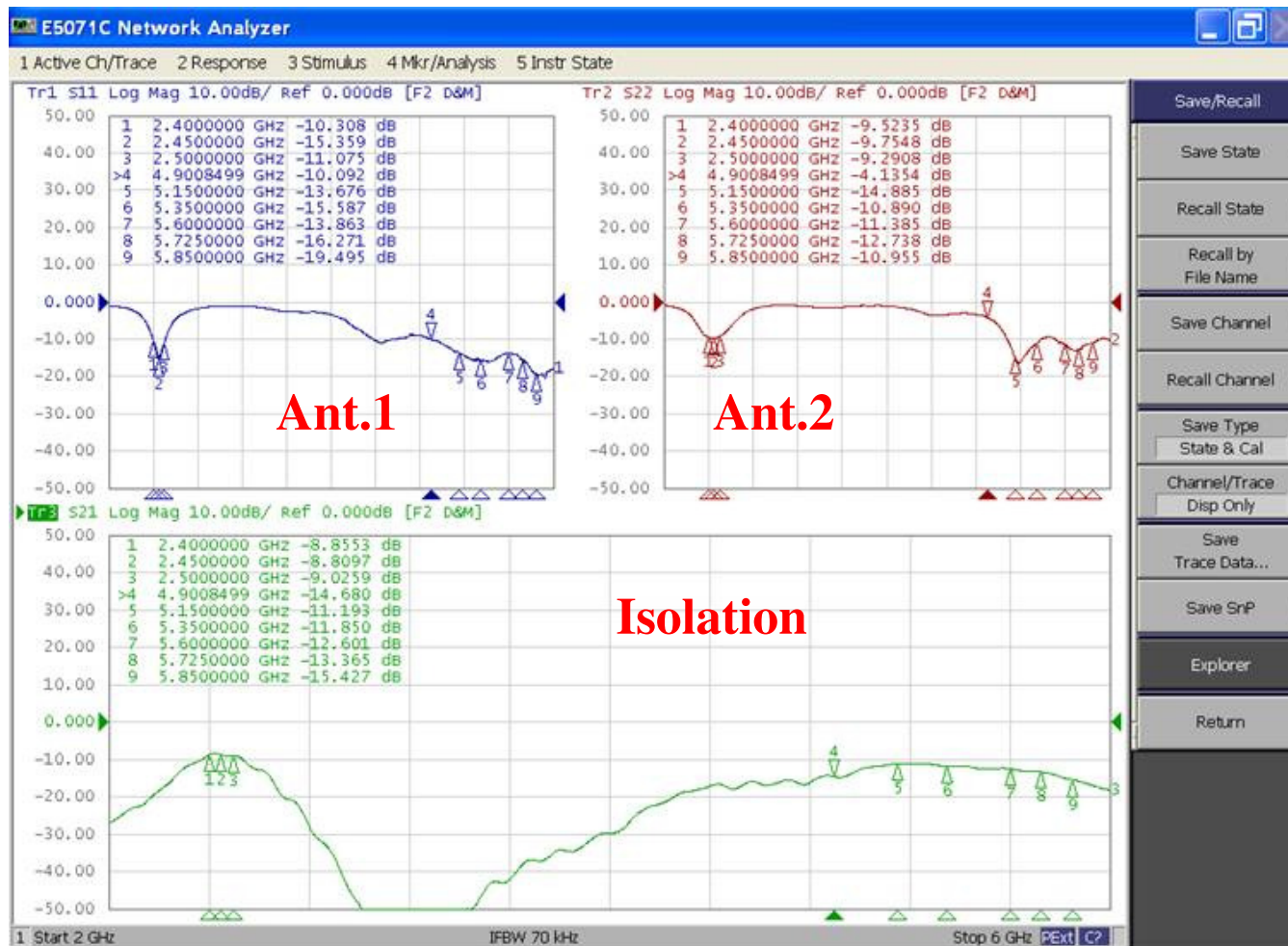
The X-Y plane and Y-Z plane are the user direction .

DUT definition :



Measurement Antenna S-Parameter Matching 0 ohm

Antenna with metal frame



	S12-isolation
Ant.1& Ant.2	-8.85dB @ 2400MHz
	-9.02dB @ 2500MHz
	-11.19dB @ 5150MHz
	-11.85dB @ 5350MHz
	-15.42dB @ 5850MHz

	S11
Ant.1	-10.30dB @ 2400MHz
	-11.07dB @ 2500MHz
	-13.67dB @ 5150MHz
	-15.58dB @ 5350MHz
	-19.49dB @ 5850MHz

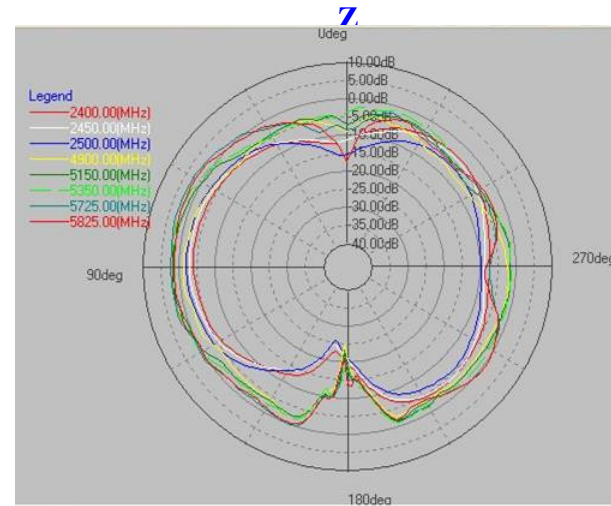
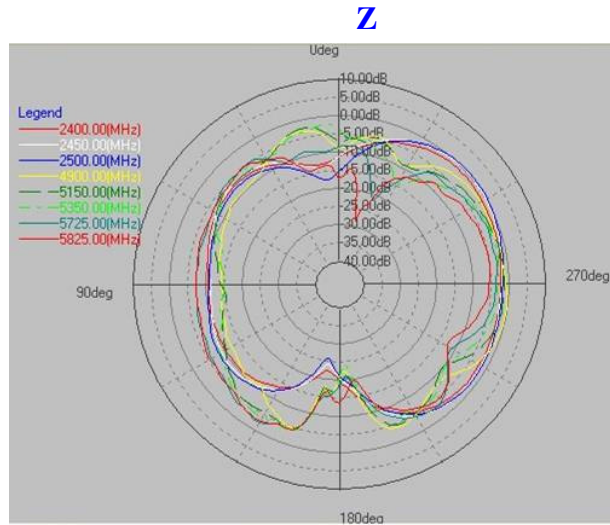
	S22
Ant.2	-9.52dB @ 2400MHz
	-9.29dB @ 2500MHz
	-14.88dB @ 5150MHz
	-10.89dB @ 5350MHz
	-10.95dB @ 5850MHz

Measurement Ant.1 Radiation Patterns

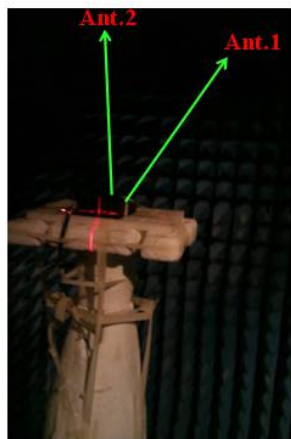
X-Z Plane

Antenna with metal frame

Y-Z Plane

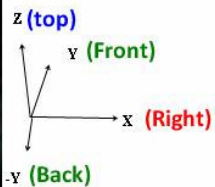


DUT direction definition :

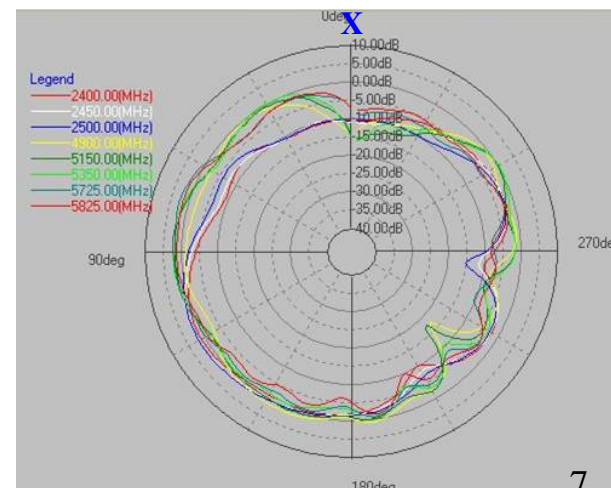


Measurement
(side view)

direction definition :



X-Y Plane



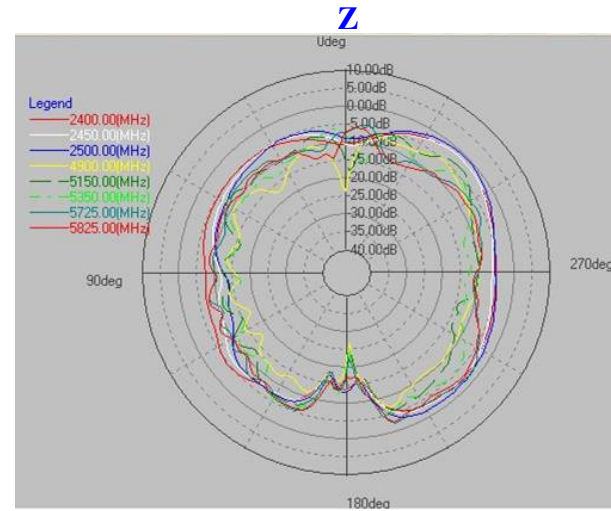
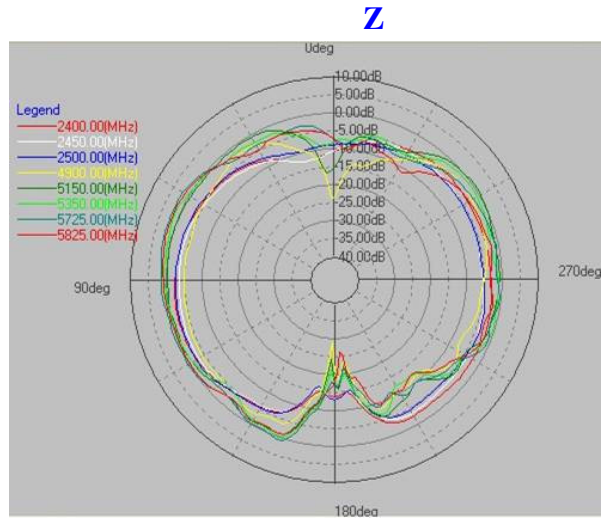
The X-Y plane and Y-Z plane are the user direction .

Measurement Ant.2 Radiation Patterns

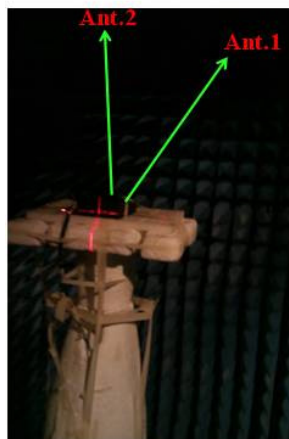
X-Z Plane

Antenna with metal frame

Y-Z Plane

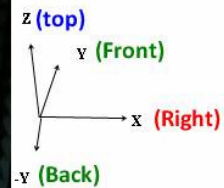


DUT direction definition :

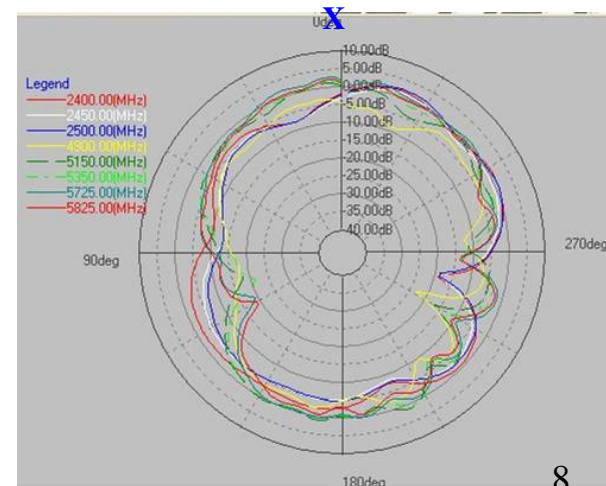


Measurement
(side view)

direction definition :



X-Y Plane



The X-Y plane and Y-Z plane are the user direction .

Conclusion

	Frequency	Ant. 1 & Ant. 2 : isolation	Ant. 1 : S11 ,Efficiency (%), Peak Gain(dBi)	Ant. 2 :S11,Efficiency (%), Peak Gain(dBi)
Ant. With metal frame	2.40GHz	-8.85dB	S11:-10.3dB, Eff.: 45 % , 1.75dBi	S11:-9.52dB, Eff.: 55 % , 2.05dBi
	2.50GHz	-9.02dB	S11:-11.0dB, Eff.: 49 % , 2.77dBi	S11:-9.29dB, Eff.: 51 % , 2.72dBi
	5.15GHz	-11.19dB	S11:-13.6dB, Eff.: 61 % , 2.73dBi	S11:-14.8dB, Eff.: 55 % , 2.57dBi
	5.35GHz	-11.85dB	S11:-15.5dB, Eff.: 62 % , 3.20dBi	S11:-10.8dB, Eff.: 57 % , 3.00dBi
	5.825GHz	-15.42dB	S11:-19.4dB, Eff.: 57 % , 2.92dBi	S11:-10.9dB, Eff.: 52 % , 3.17dBi