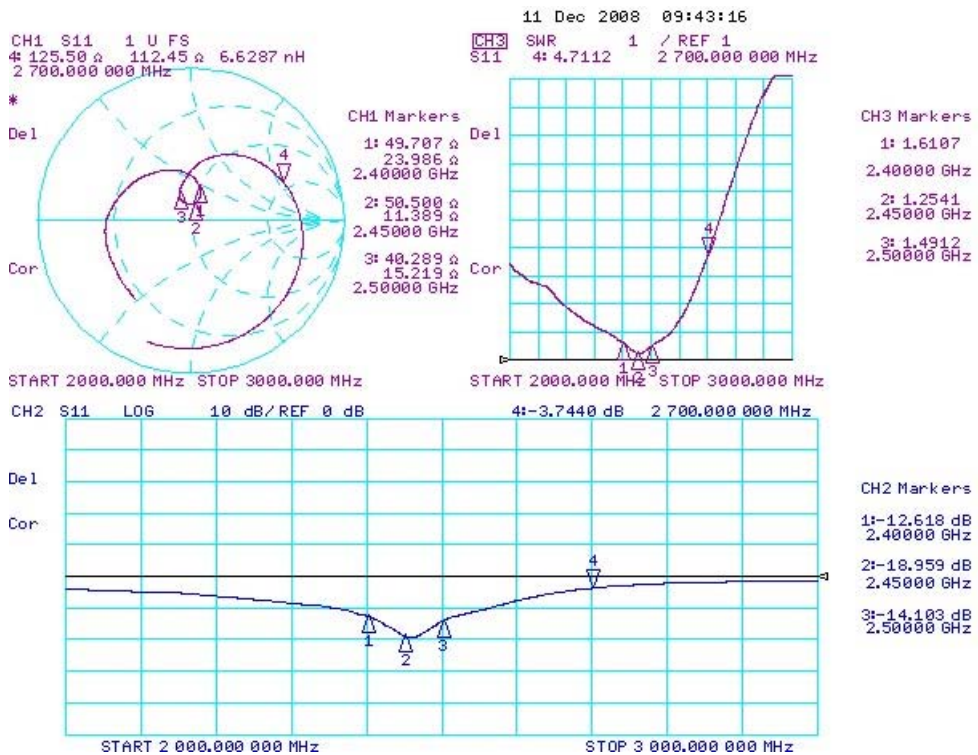


1 Antenna Introduction

USB 1(84461)

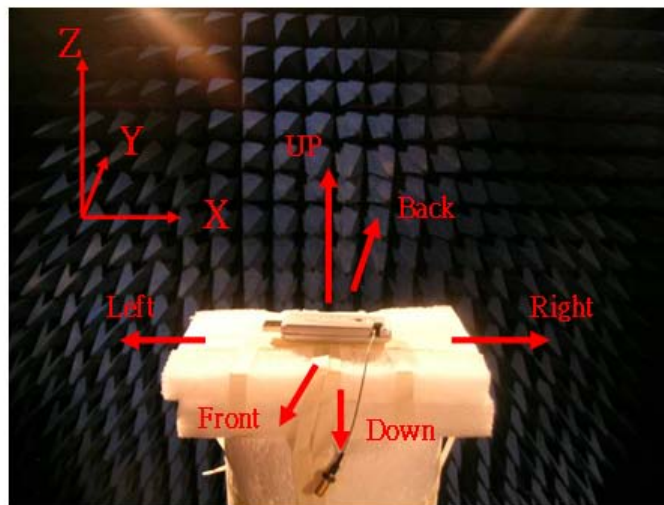
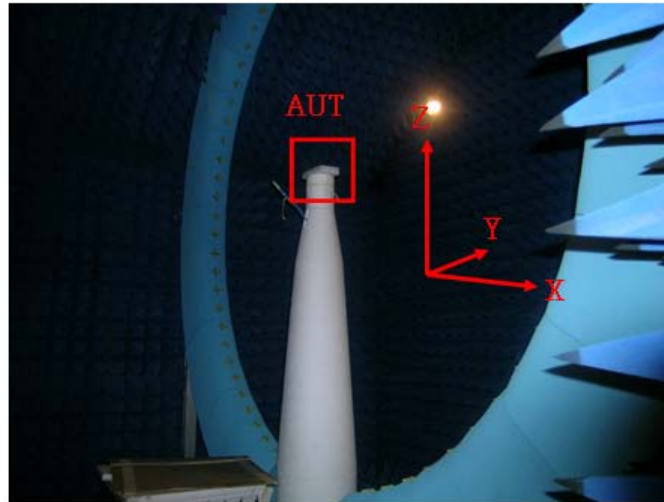


1.1 S11 test results

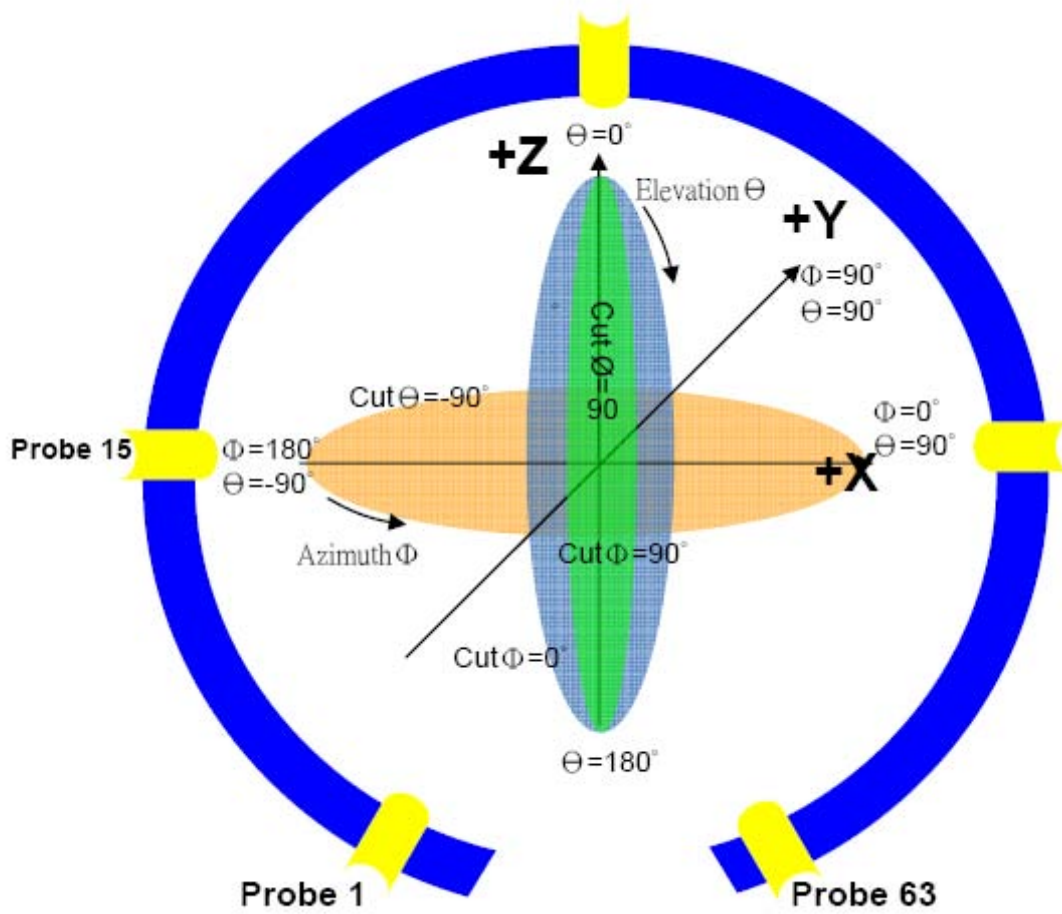


2 Gain & Patterns test results

2.1 Measurement setting



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

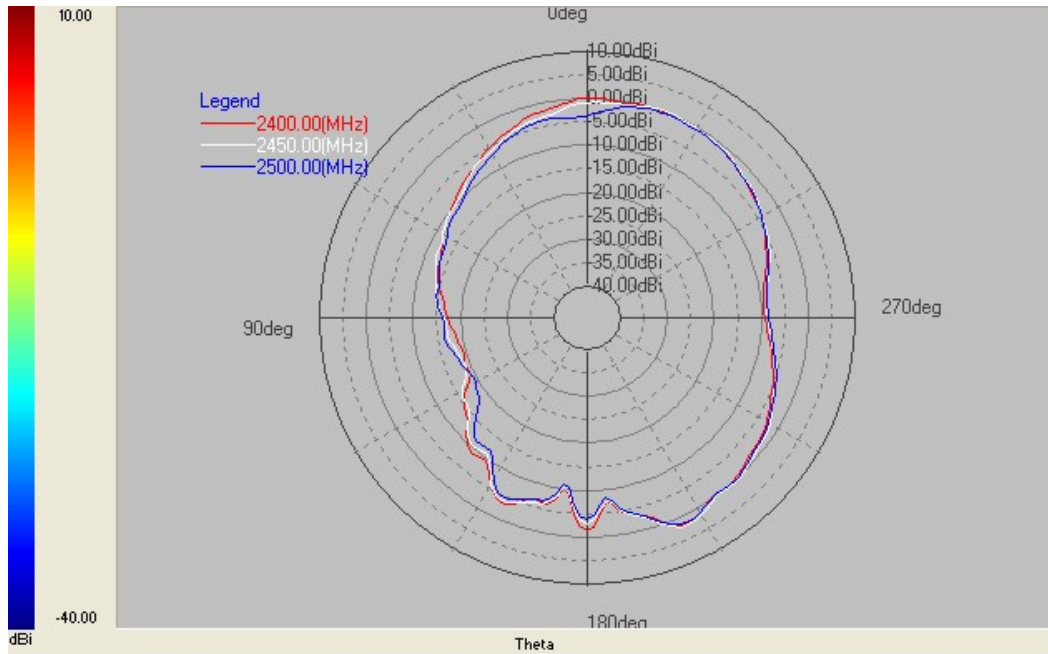


	θ	ϕ
Total angle	175°	360°
How many angle scan one point	5°	5°
Total scan point	36	73

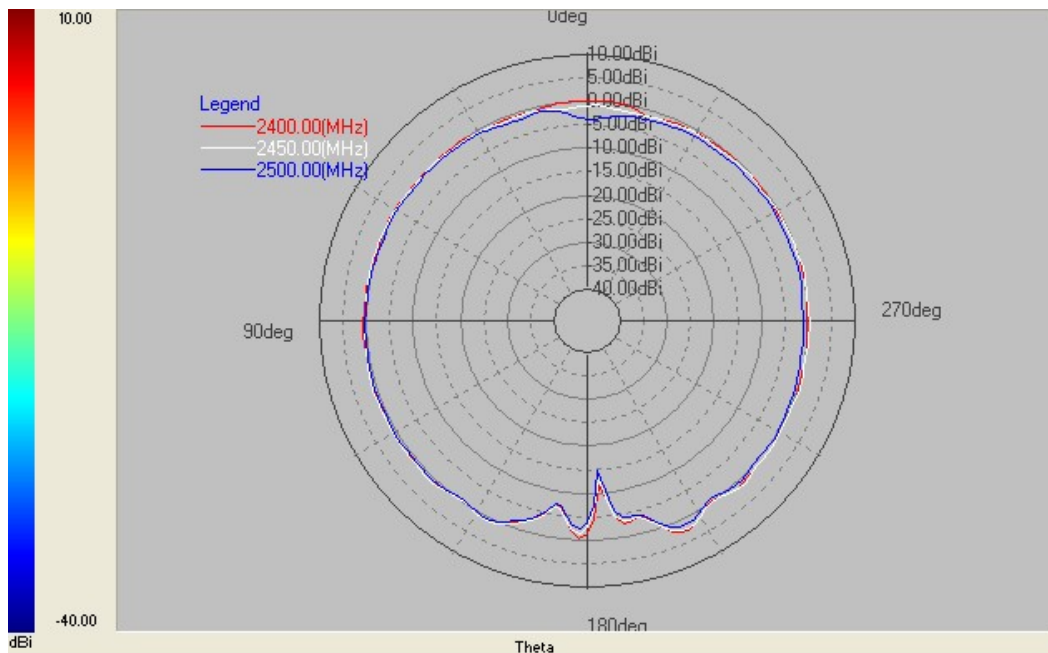
2.2 2D patterns

2.2.1 USB 1 (84461)

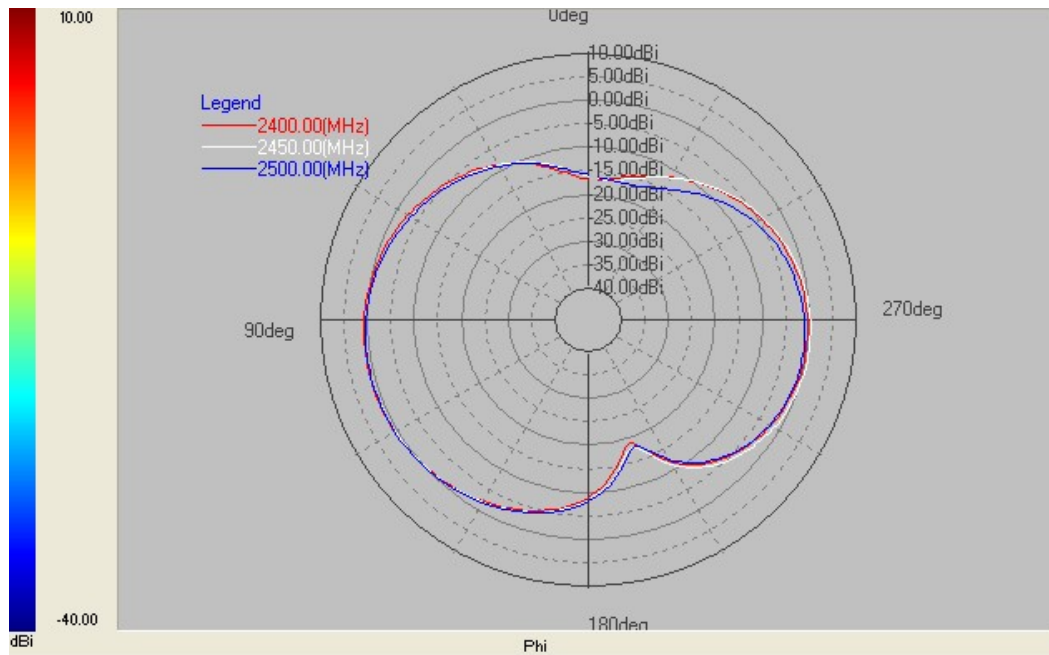
2.4~2.5GHz



X-Z Plane (E-total)



Y-Z Plane (E-total)



X-Y Plane (E-total)

3 Summary

3.1 Return Loss

	USB 1 (dB)
2.4GHz	-12.6dB
2.45GHz	-18.9dB
2.5GHz	-14.1dB

3.2 3D total Peak Gain & Efficiency

Frequency	USB 1	
	Peak Gain (dBi)	Efficiency (%)
2.4GHz	2.56	59.87
2.45GHz	2.16	61.06
2.5GHz	1.60	54.61

3.3 Average Gain

Frequency	USB1		
	X-Z	Y-Z	X-Y
2.4GHz	-5.19	-0.38	-4.30
2.45GHz	-5.16	-0.49	-4.15
2.5GHz	-5.72	-1.11	-4.67

(unit : dBi)