

#### Ralink's Printed Antenna Report for USB 2.4GHz ISM Band Working Frequency -- RT3070

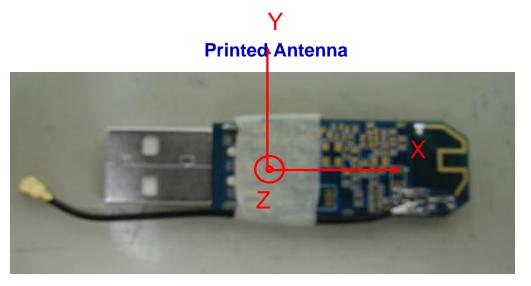
**Editor**: Claire

Date: 20080704



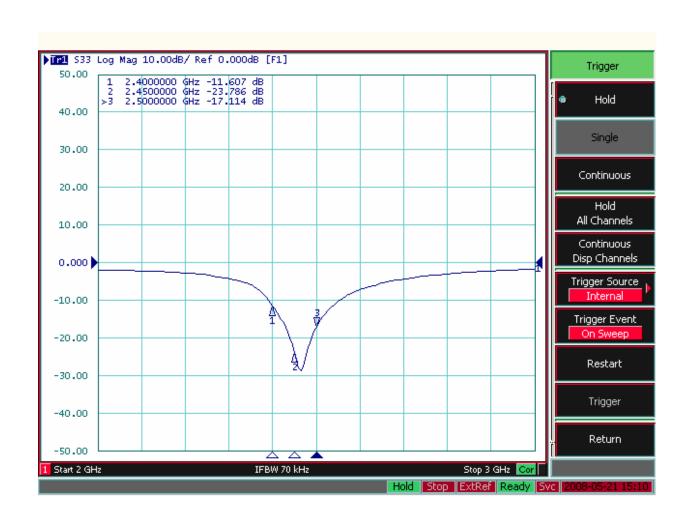
#### **Measurement Items**

- Measurement Items:
  - a. Return loss
  - b. Radiation pattern





#### **Return Loss**

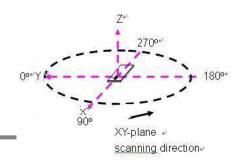


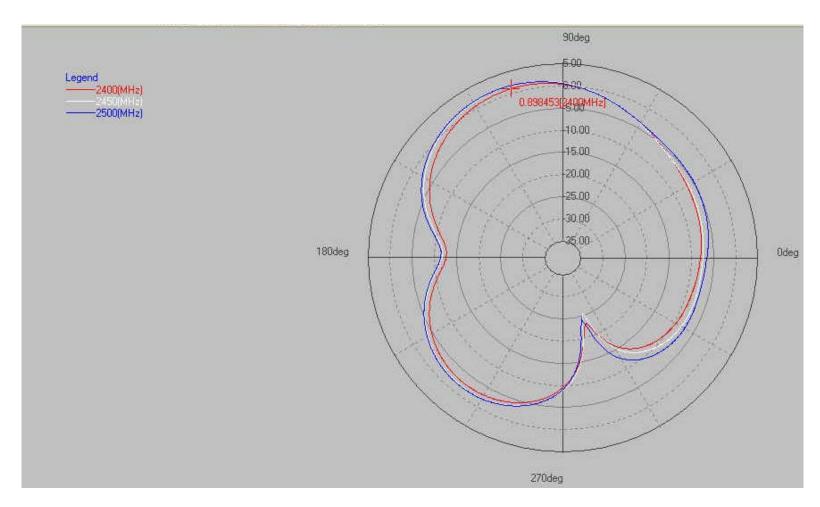


## Radiation pattern



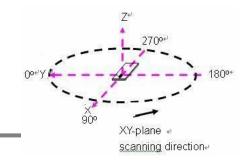
### X-Y Plane Horizontal Polarization

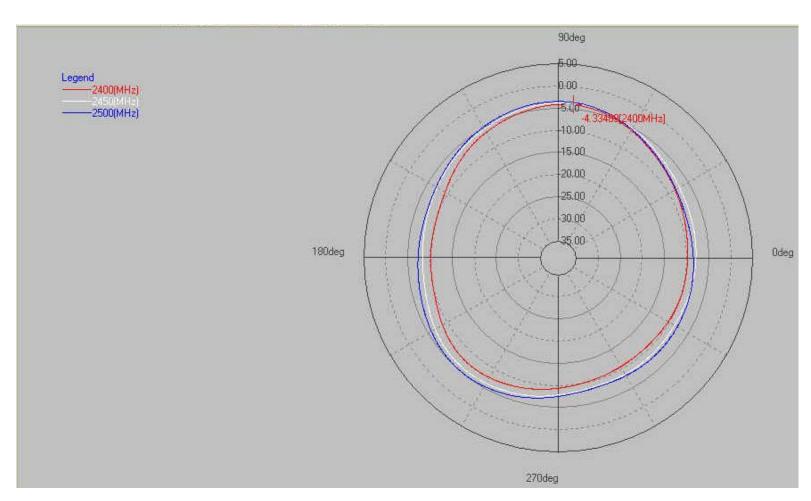






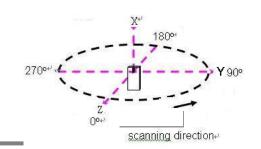
#### X-Y Plane Vertical Polarization

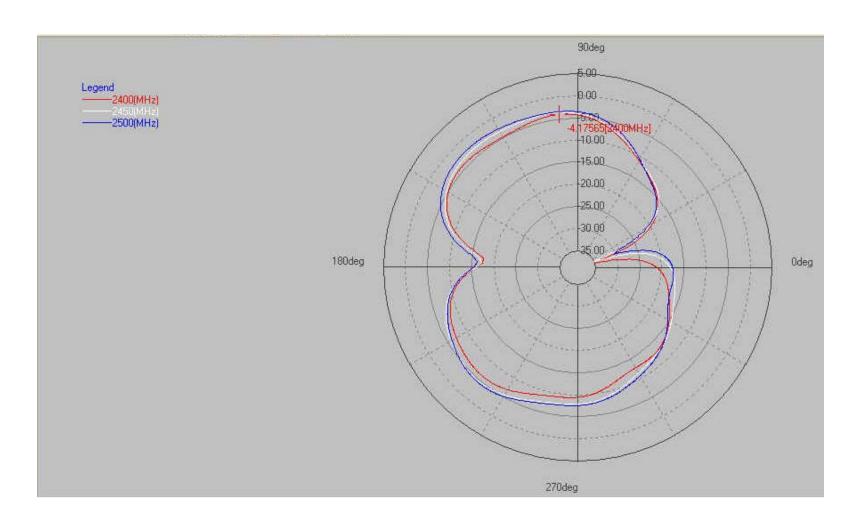






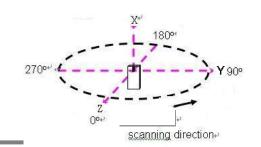
### Y-Z Plane Horizontal Polarization

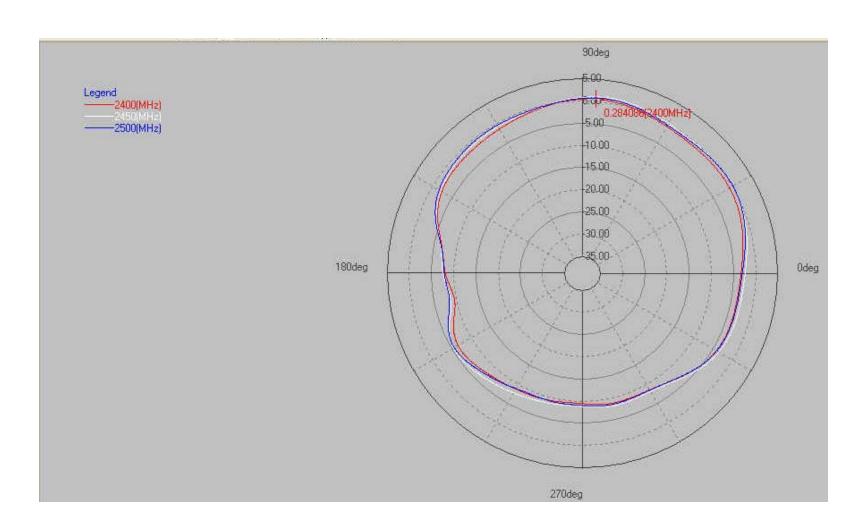






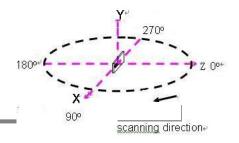
#### Y-Z Plane Vertical Polarization

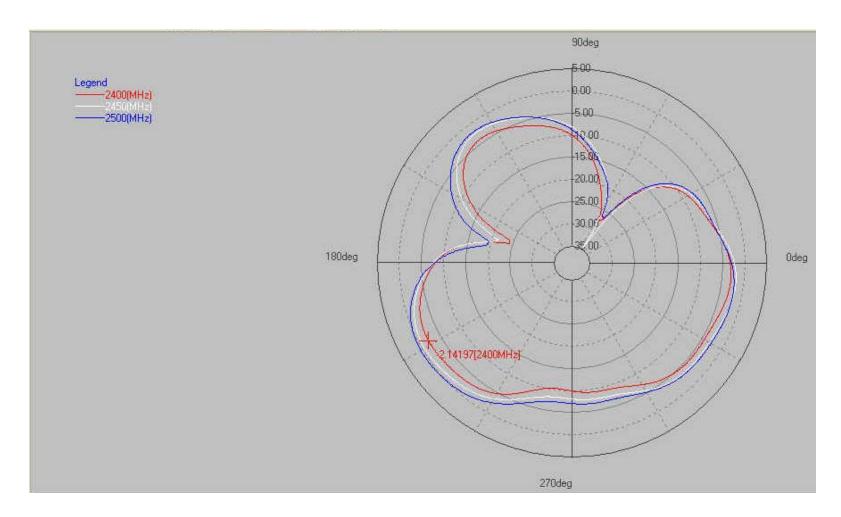






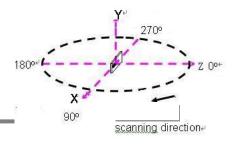
### X-Z Plane Horizontal Polarization

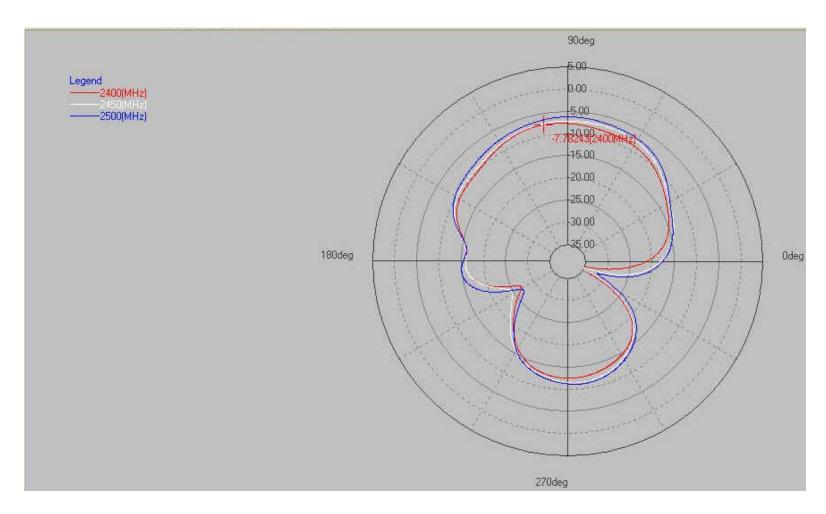






#### X-Z Plane Vertical Polarization







# Gain(Hor. & Ver.)

XY -Hor.

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	0.9	-4.34
2.45	1.62	-3.63
2.5	1.71	-3.37

XY -Ver.

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-4.33	-8
2.45	-4.01	-6.78
2.5	-3.71	-6.45

YZ -Hor.

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-4.18	-8.59
2.45	-3.35	-7.61
2.5	-2.45	-7.16

YZ -Ver.

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	0.28	-3.39
2.45	0.94	-2.72
2.5	0.63	-2.88

XZ -Hor.

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Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-2.14	-6.34
2.45	-0.54	-4.94
2.5	-0.44	-4.36

XZ -Ver.

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-7.78	-12.47
2.45	-7.43	-11.74
2.5	-6.49	-11.1



## Gain (Total: Ver. + Hor.)

#### XY-total

Frequency(GHz)	Max. Value (dBi)	Average (dBi)
2.4	1.83	-2.79
2.45	2.5	-1.91
2.5	2.65	-1.63

#### YZ-total

Frequency(GHz)	Max. Value (dBi)	Average (dBi)
2.4	1.46	-2.24
2.45	1.91	-1.5
2.5	1.83	-1.15

#### **ZX-total**

Frequency(GHz)	Max. Value (dBi)	Average (dBi)
2.4	-2.13	-5.39
2.45	-0.52	-4.11
2.5	0.44	-3.53