Specifications Sheet

Object	Internal Antenna	**Page**	1 of 6
Customer		**Date**	January 24, 2005
System	WLAN/Bluetooth	**Rev.**	IR
Model Name	W4I–BP–XX	**Written by**	

Electrical Specifications

Frequency Range (MHz)	2400 ∽ 2483.5
Band Width (MHz)	83.5
V.S.W.R (Min)	1.9 : 1
Gain (Max)	2 (dBi)
Input Impedance	50 (Ω)
Polarization	Linear

Mechanical Specifications

Antenna Size (Width x Length x Height)	4.5 × 18 × 3.5 mm
Weight	N / A
Radiator Material	Copper
Operation Temperature	− 30 ∽ 90 (℃)
Operation Humidity	10 ∽ 90 (%)

Option	
Remarks	Date measured as installed in a phone. Data will vary if installed in a different product.

WINiZEN Co., Ltd.

Fig 1. Return Loss (Agilent E8357A 300KHz～6GHz PNA Series Network Analyzer)

Fig 2. V.S.W.R (Agilent E8357A 300KHz～6GHz PNA Series Network Analyzer)

Fig 3. Smith Chart (Agilent E8357A 300KHz～6GHz PNA Series Network Analyzer)

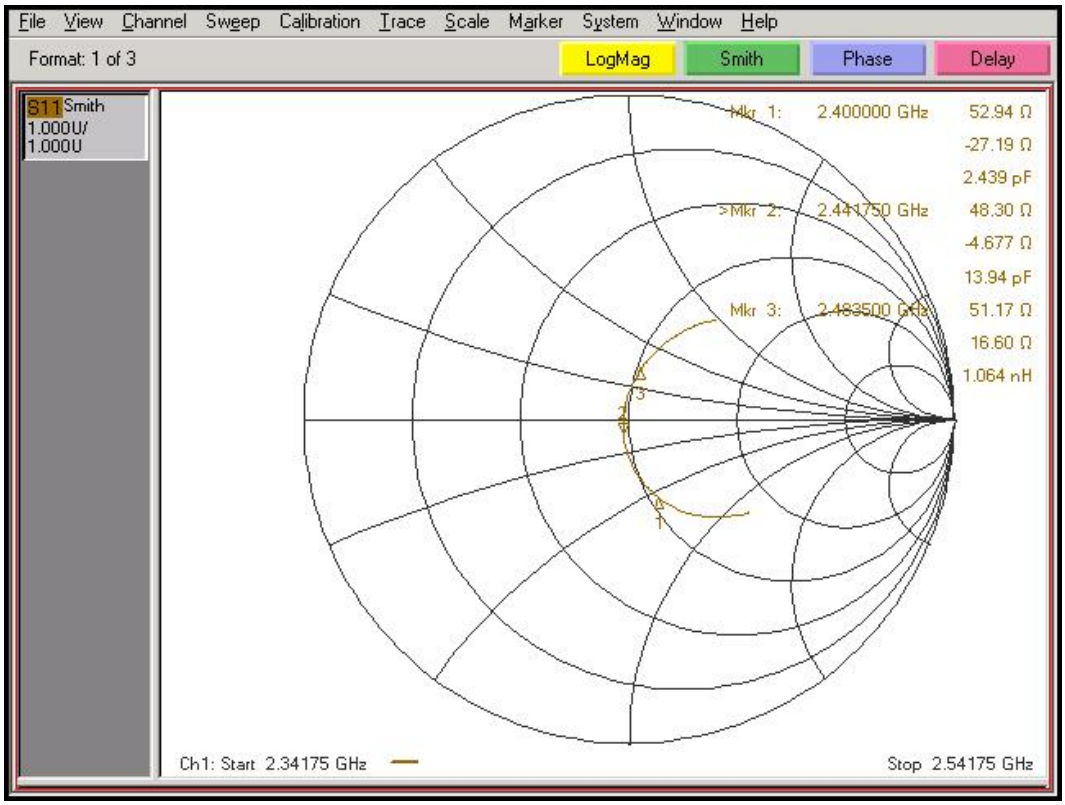


Fig 4. Measurement Configuration

(Hewlett Packard 8722ES 50 MHz～40 GHz S-Parameter Network Analyzer)

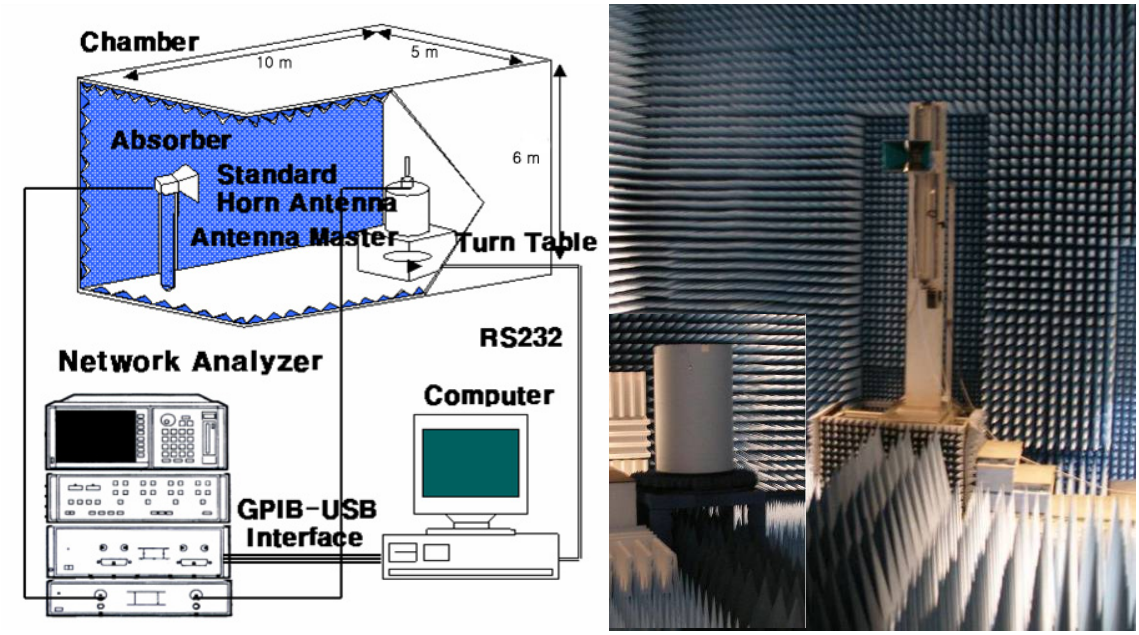
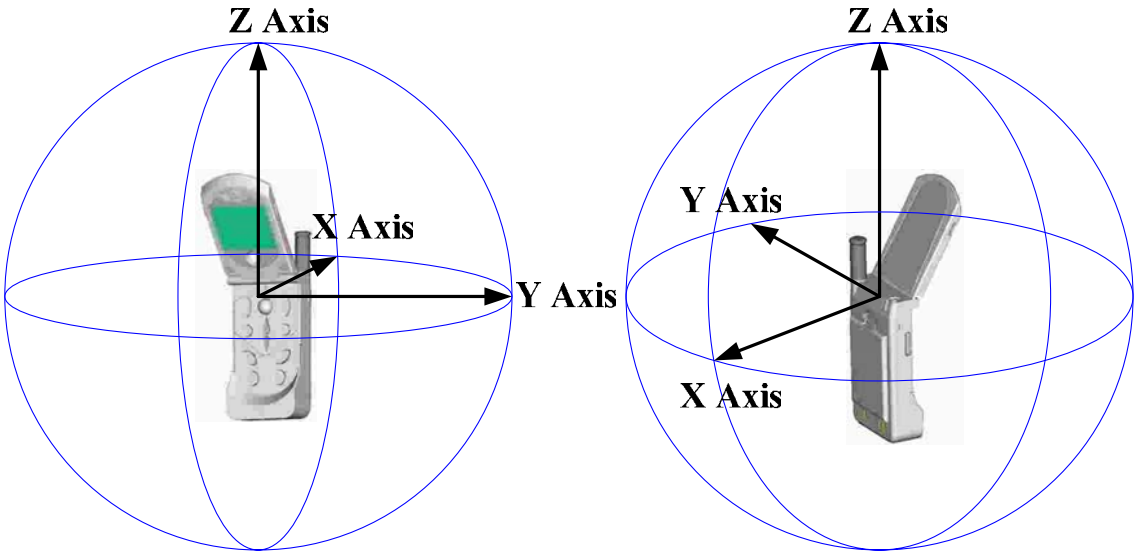


Fig 5. Axis Definitions (Antenna Center)



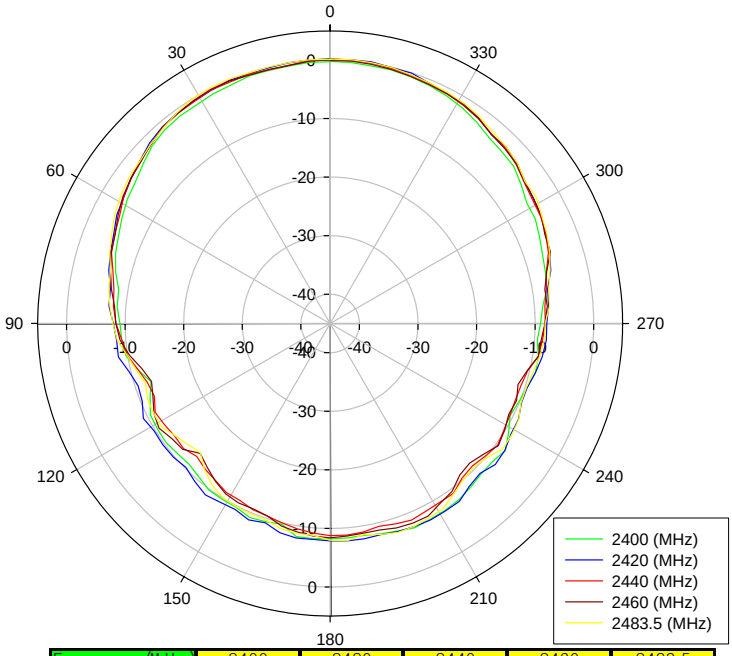
a. Azimuth Pattern (Co-pol) : XY Plane ; Horn Antenna Polarization : Vertical

b. Elevation Pattern (Co-pol) : XZ Plane ; Horn Antenna Polarization : Horizontal

c. Elevation Side Pattern (Co-pol) : YZ Plane ; Horn Antenna Polarization : Horizontal

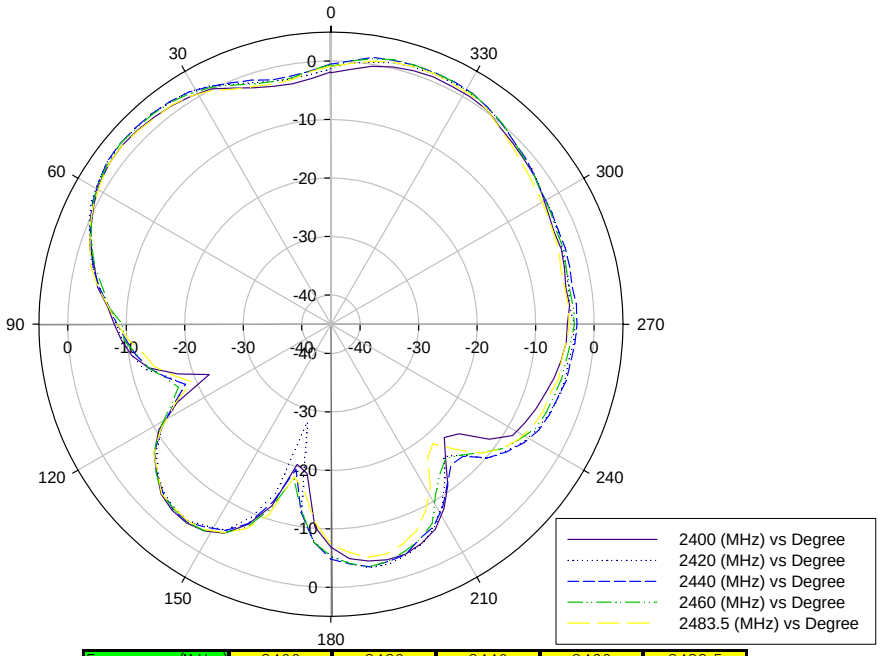
Fig 6. Gain Patterns

a. Azimuth Pattern



Frequency (MHz)	2400	2420	2440	2460	2483.5
Max Gain	-0.2775	0.23018	0.17535	0.0445	0.19408
Average Gain	-6.3916909	-5.6819327	-6.5979374	-6.546108	-6.0935579

b. Elevation Pattern



Frequency (MHz)	2400	2420	2440	2460	2483.5
Max Gain	2.00221	2.45469	2.44743	2.4058	1.95098
Average Gain	-5.2331033	-4.5990409	-4.3113589	-4.5274488	-5.2126217

Fig 7. Antenna Mechanical