



Specifications Sheet

Object	Internal PCB Antenna	Page	1 of 5
Customer		Date	March 11, 2005
System	WLAN/ Bluetooth	Rev.	IR
Model Name	W5I-BO-XX	Written by	W. I. KWAK

Electrical Specifications

Frequency Range (MHz)	2400 ~ 2483.5
Band Width (MHz)	83.5
V.S.W.R (Min)	1.9 : 1
Gain (Max)	3.0 ± 1 (dBi)
Input Impedance	50 (Ω)
Polarization	Linear

Mechanical Specifications

Antenna Size (Width x Length x Height)	48 × 8 × 1 mm (optional)
Weight	N / A
Connector	I-PEX MHF or HRS U.FL (optional)
Cable Length	80 mm (optional)
Radiator Material	Copper
Operation Temperature	- 30 ~ 70 ($^{\circ}\text{C}$)
Operation Humidity	10 ~ 90 (%)

Option	
Remarks	Data measured at free-space.

WINiZEN Co., Ltd.

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

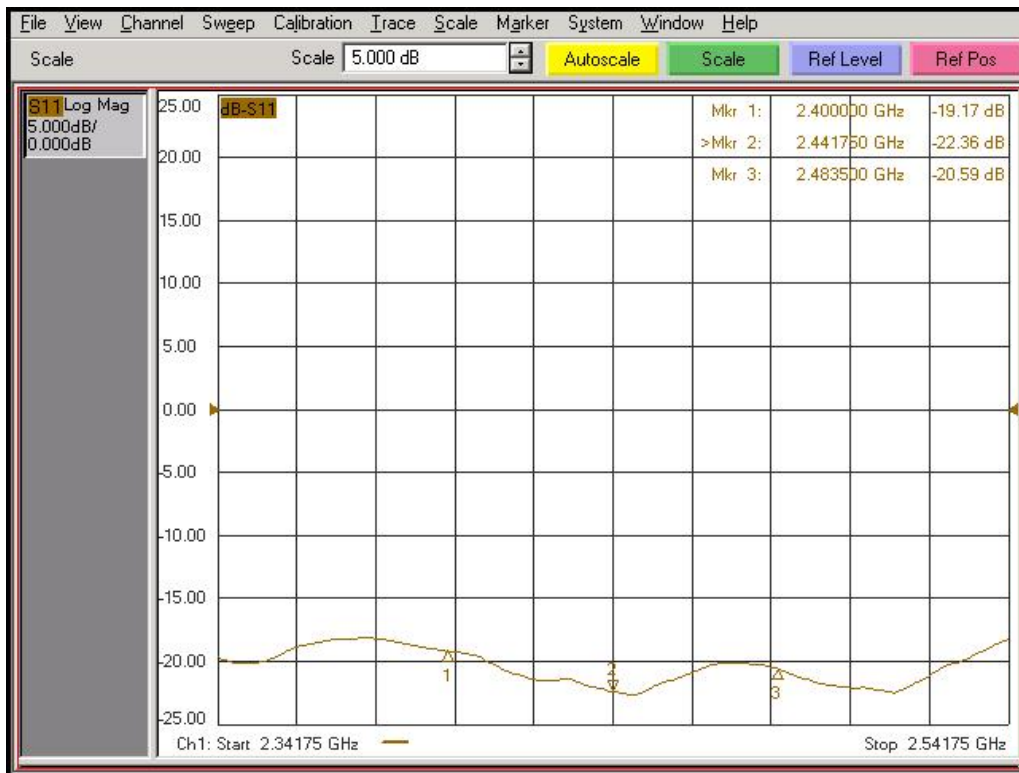


Fig 2. V.S.W.R (Agilent E8357A 300KHz~6GHz PNA Series Network Analyzer)

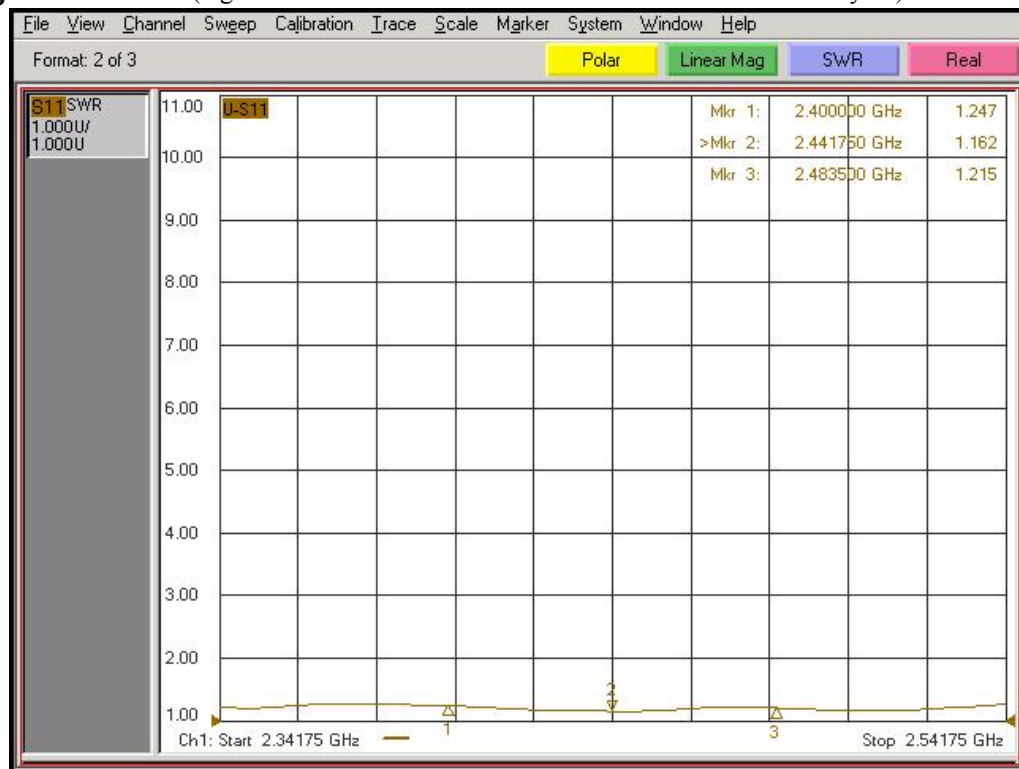


Fig 3. Smith Chart (Agilent E8357A 300KHz~6GHz PNA Series Network Analyzer)

LEFT

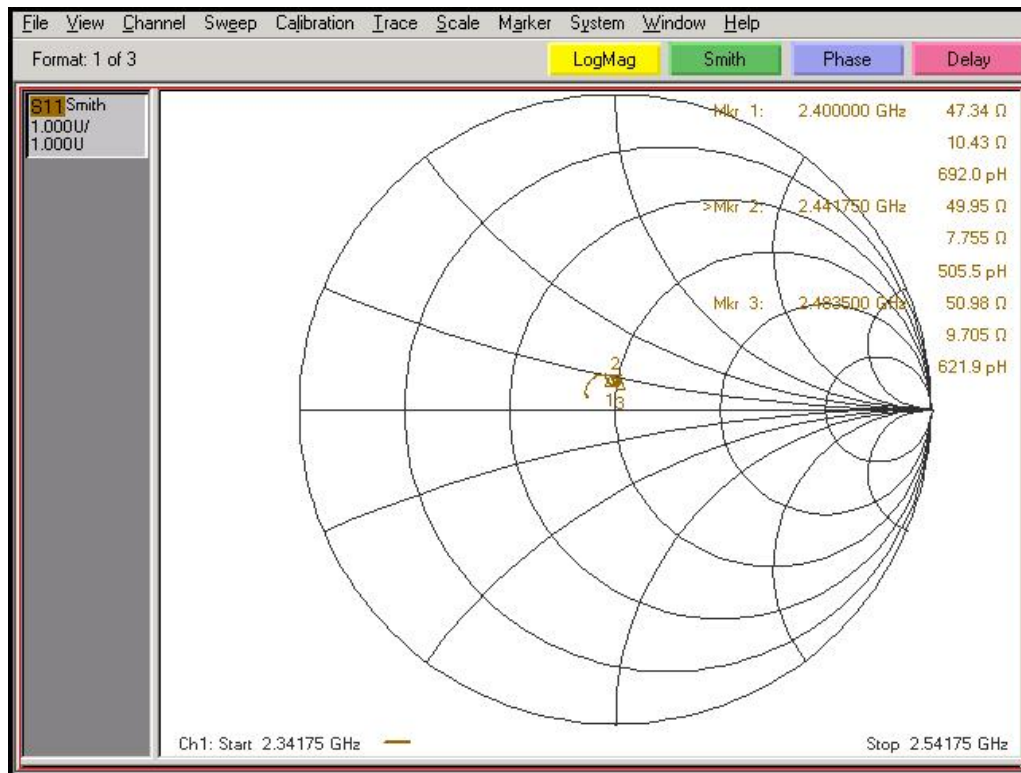


Fig 4. Measurement Configuration

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

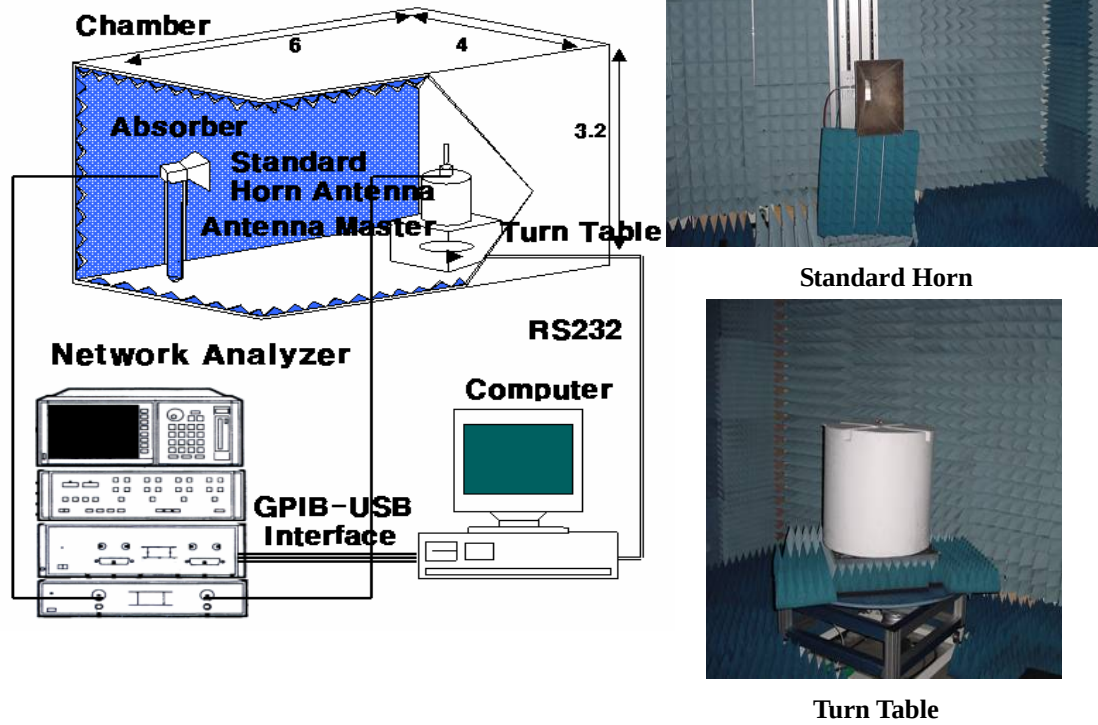
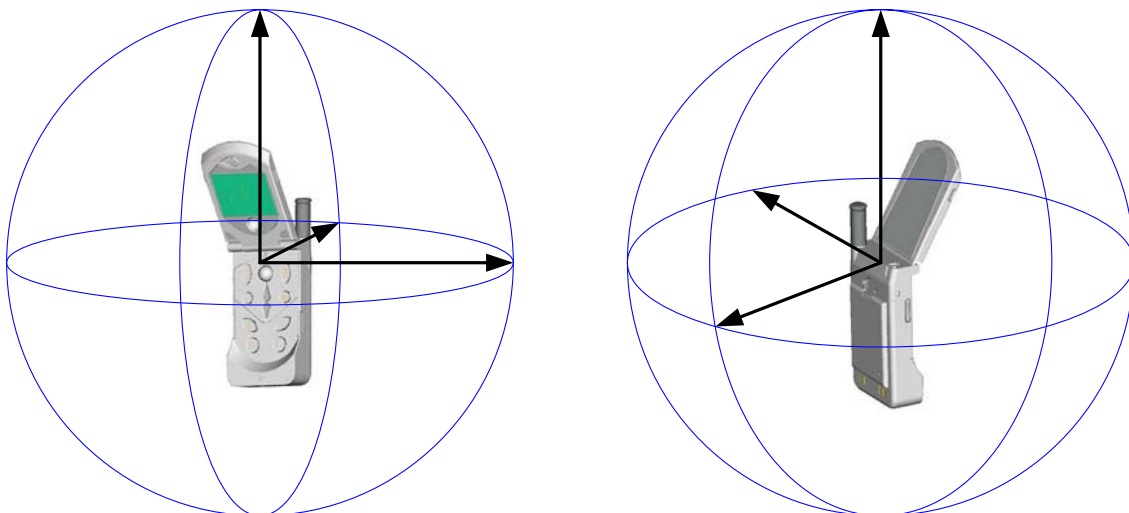


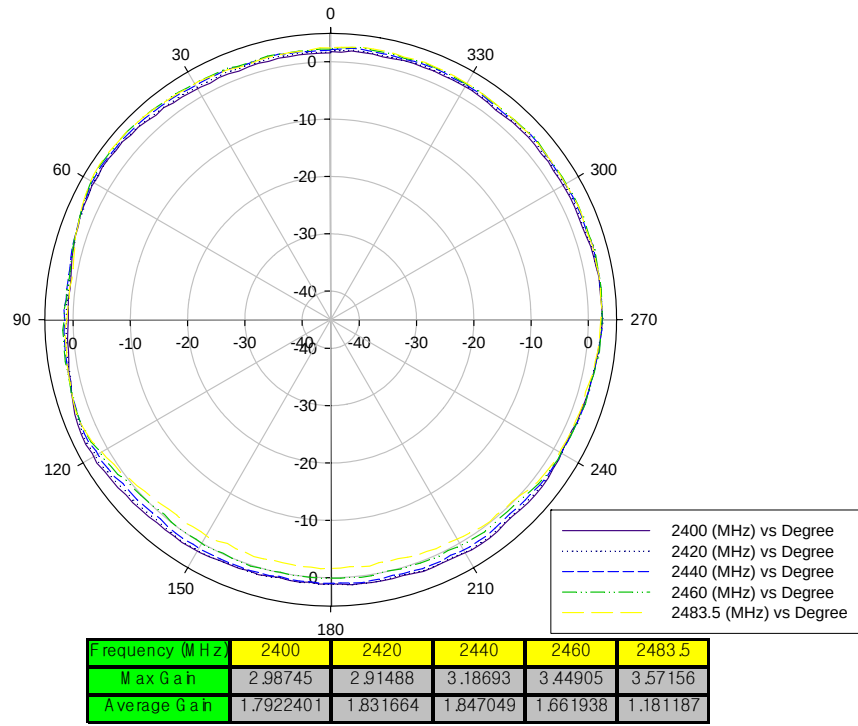
Fig 5. Axis Definitions (Antenna Center)



- 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



b. Elevation Pattern

