



Specifications Sheet

Object	Dual-band Internal Antenna	Page	1 of 9
Customer		Date	July 29, 2005
System	WLAN IEEE 802.11a/b/g	Rev.	IR
Model Name	W5I-WO-XX	Written by	

Electrical Specifications

Frequency Range (MHz)	2400 ~ 2500	5150 ~ 5875
Band Width (MHz)	100	725
V.S.W.R (Min)	1.9 : 1	1.9 : 1
Gain (Max)	3 (dBi)	3.5 (dBi)
Input Impedance	50 (Ω)	
Polarization	Linear	

Mechanical Specifications

Antenna Size (Width x Length x Height)	$48 \pm 2 \times 8 \pm 0.5 \times 1 \pm 0.5$ mm
Weight	N/A
Radiator Material	Copper
Operation Temperature	- 20 ~ 70 ($^{\circ}\text{C}$)
Operation Humidity	10 ~ 90 (%)

Option	Connector : I-PEX MHF or Hirose U.FL Cable : 1.13 mm diameter, length to be determined
Remarks	Data measured in free-space. The performance will vary at final product. The antenna size may change according to mechanical considerations.

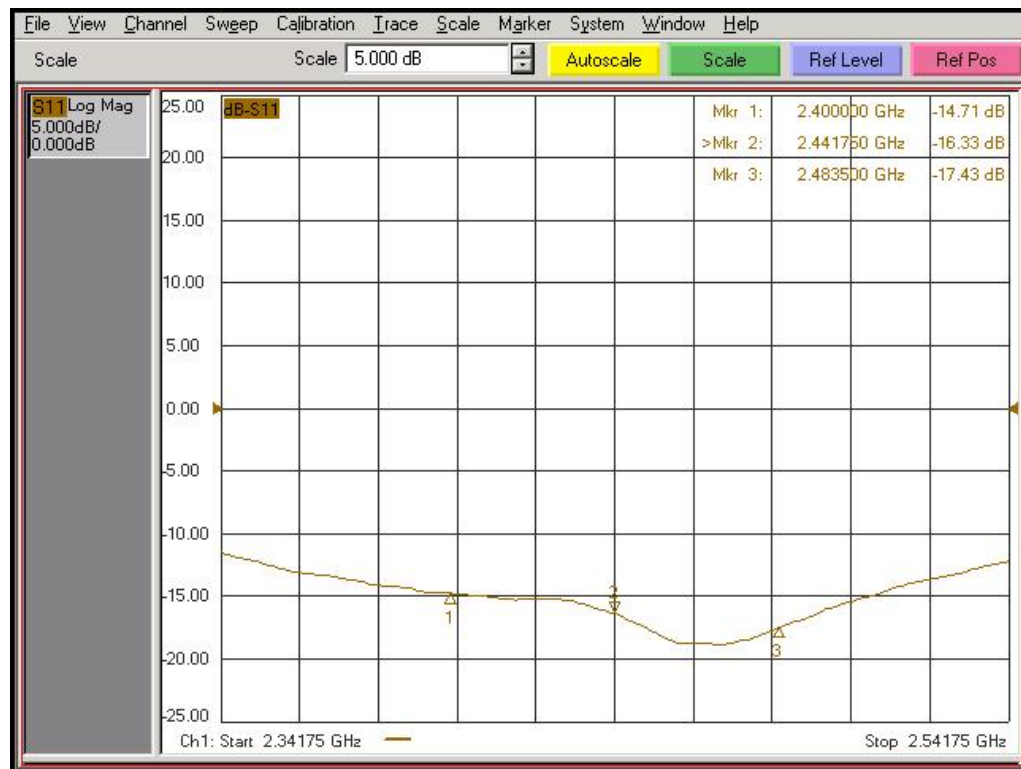
WINiZEN Co., Ltd.

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

a. 2400 MHz ~ 5825 MHz



b. 2400 MHz ~ 2483.5 MHz



c. 5150 MHz ~ 5825 MHz



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

a. 2400 MHz ~ 5825 MHz





b. 2400 MHz ~ 2483.5 MHz



c. 5150 MHz ~ 5825 MHz

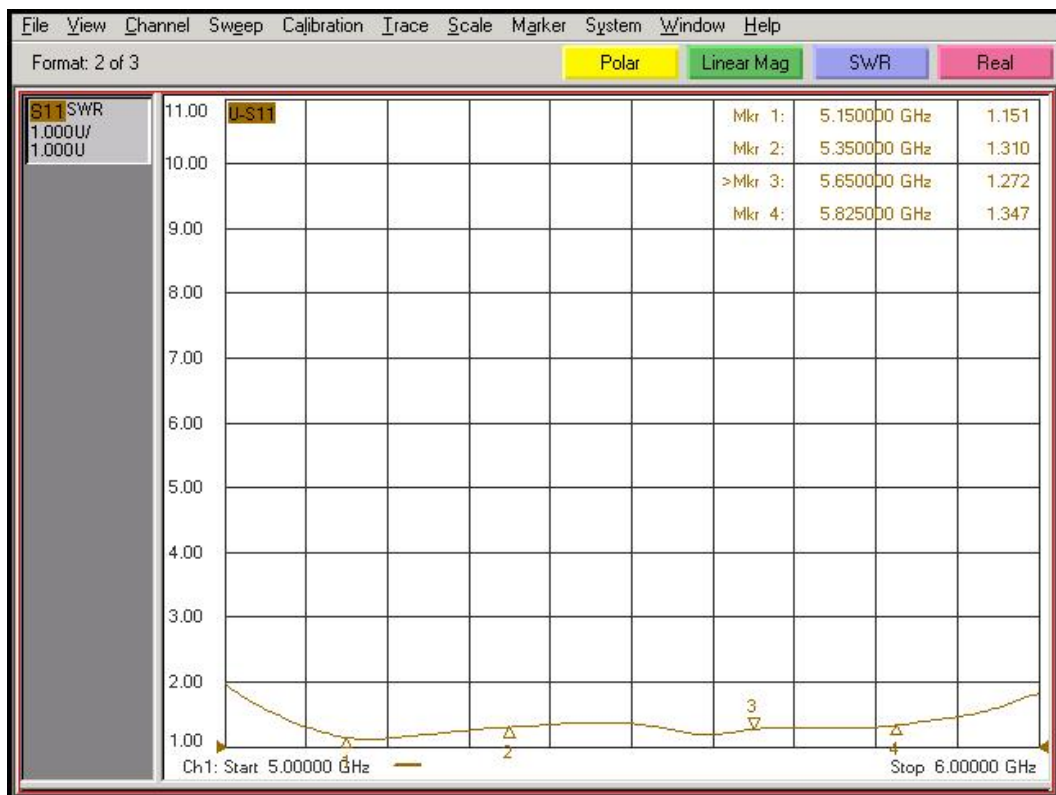
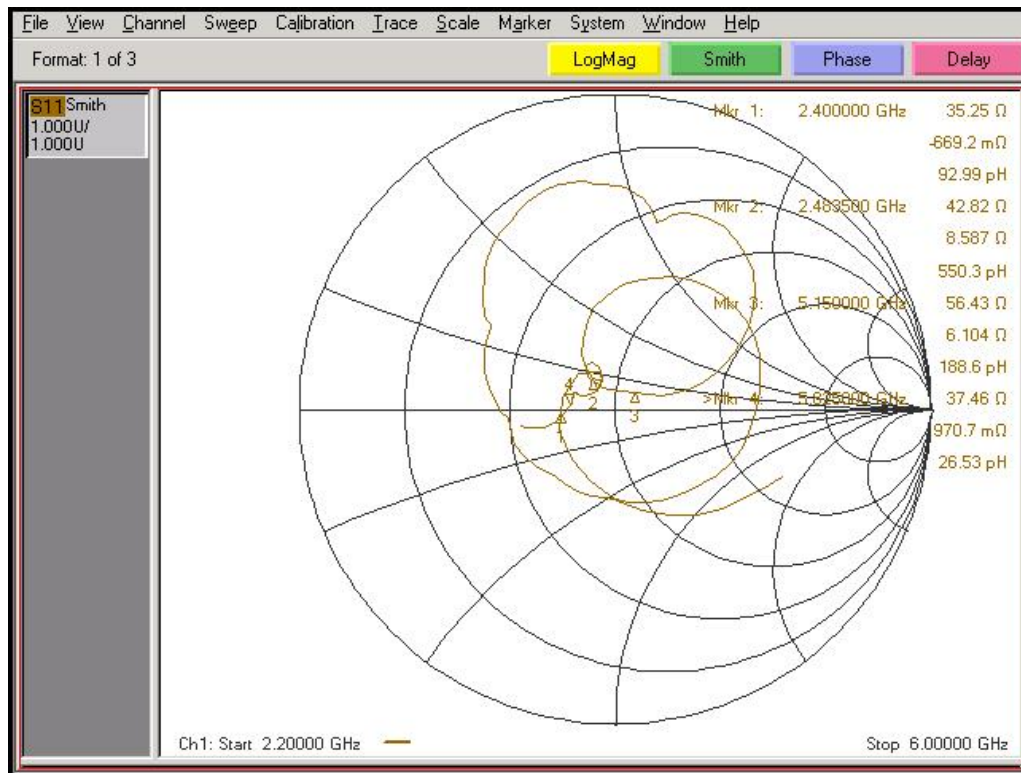
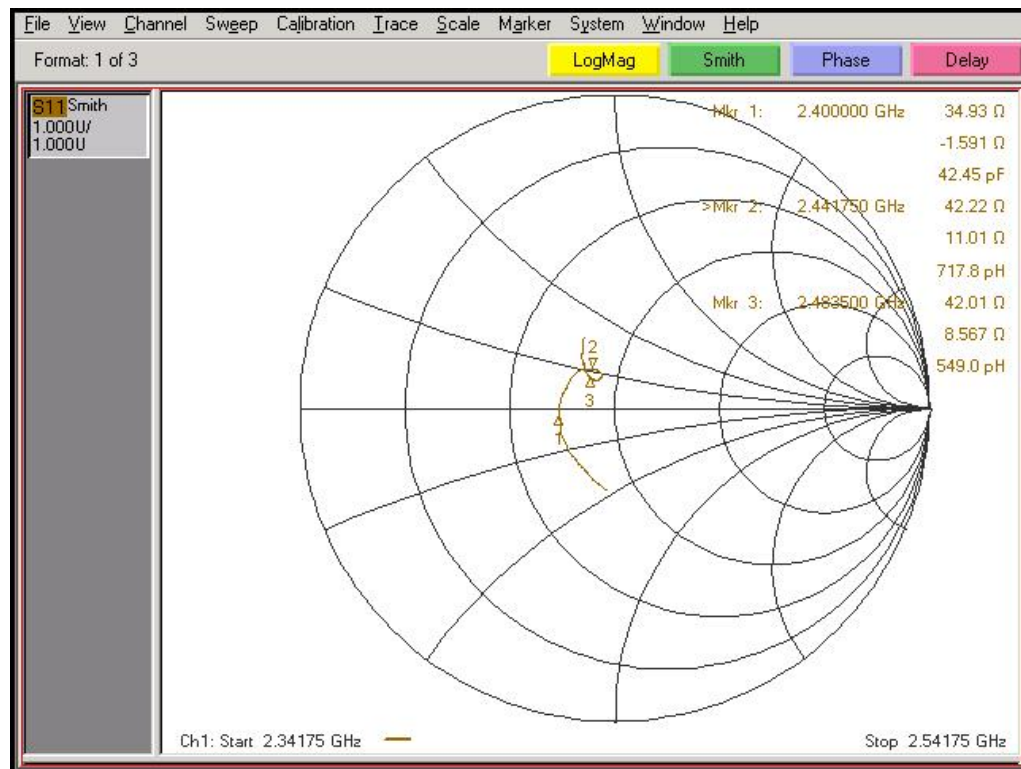


Fig 3. Smith Chart (Agilent E8357A 300KHz ~ 6GHz PNA Series Network Analyzer)

a. 2400 MHz ~ 5825 MHz



b. 2400 MHz ~ 2483.5 MHz



c. 5150 MHz ~ 5825 MHz

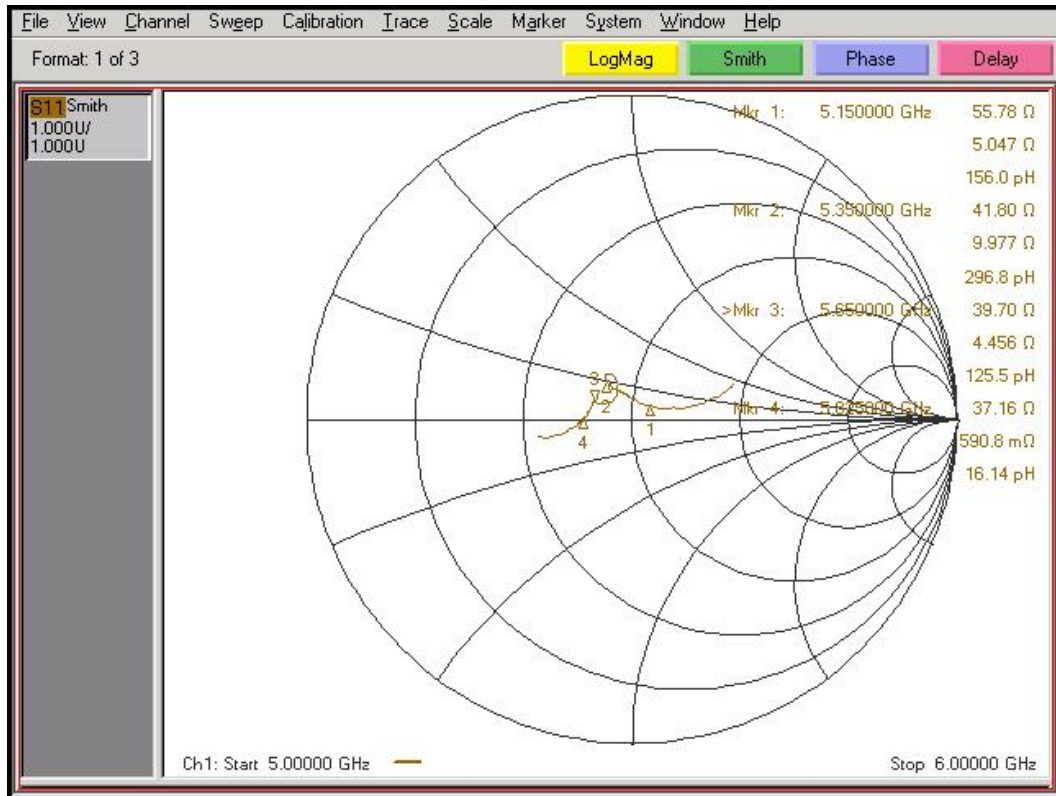


Fig 4. Measurement Configuration

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

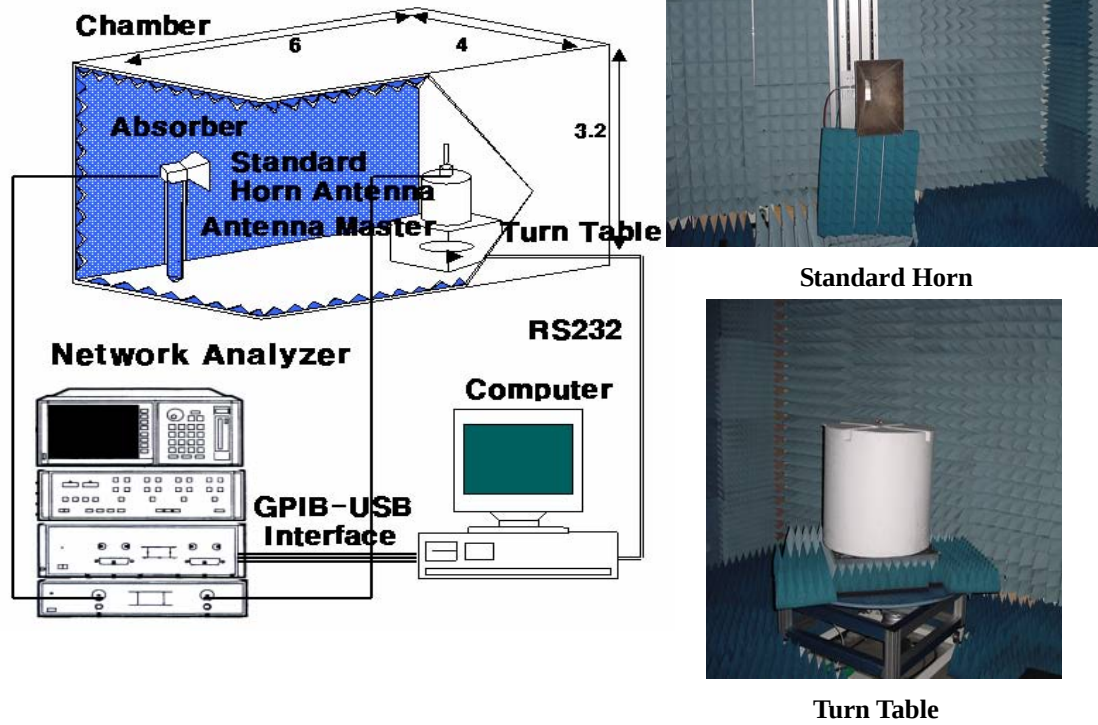
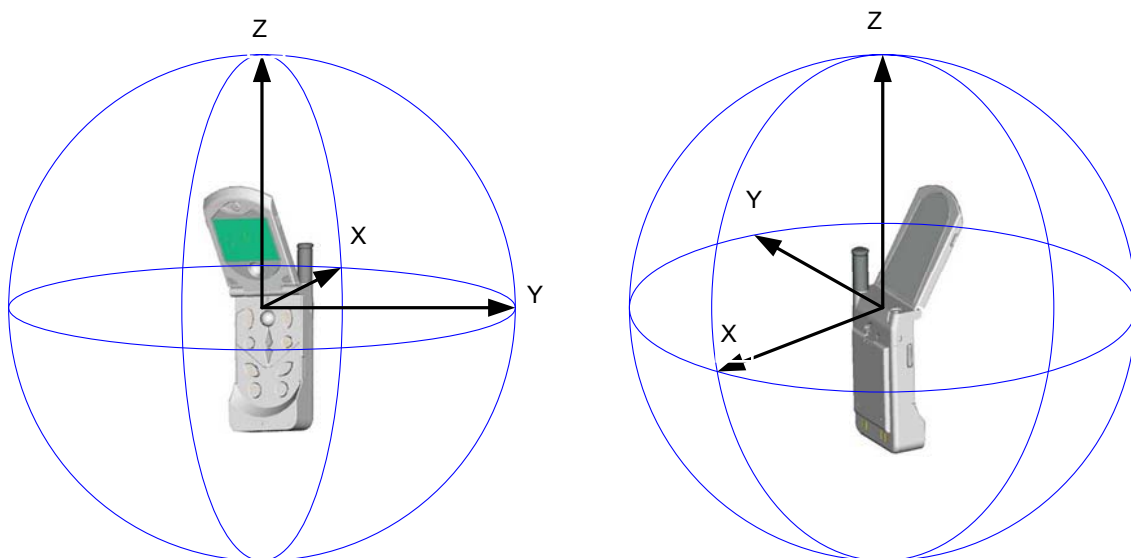


Fig 5. Axis Definitions (Antenna Center)

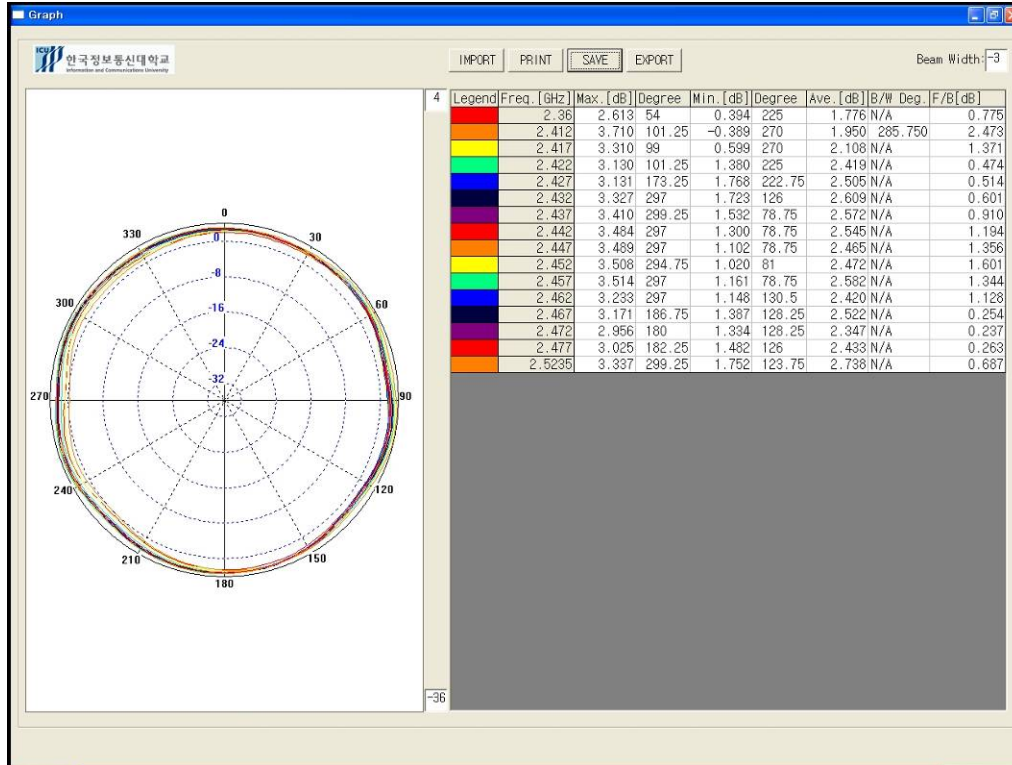


- a. Azimuth Pattern (Co-pol) : XY Plane ; Horn Antenna Polarization : Vertical
- b. Elevation Pattern (Co-pol) : XZ Plane ; Horn Antenna Polarization : Horizontal
- c. Elevation Side Pattern (Co-pol) : YZ Plane ; Horn Antenna Polarization : Horizontal

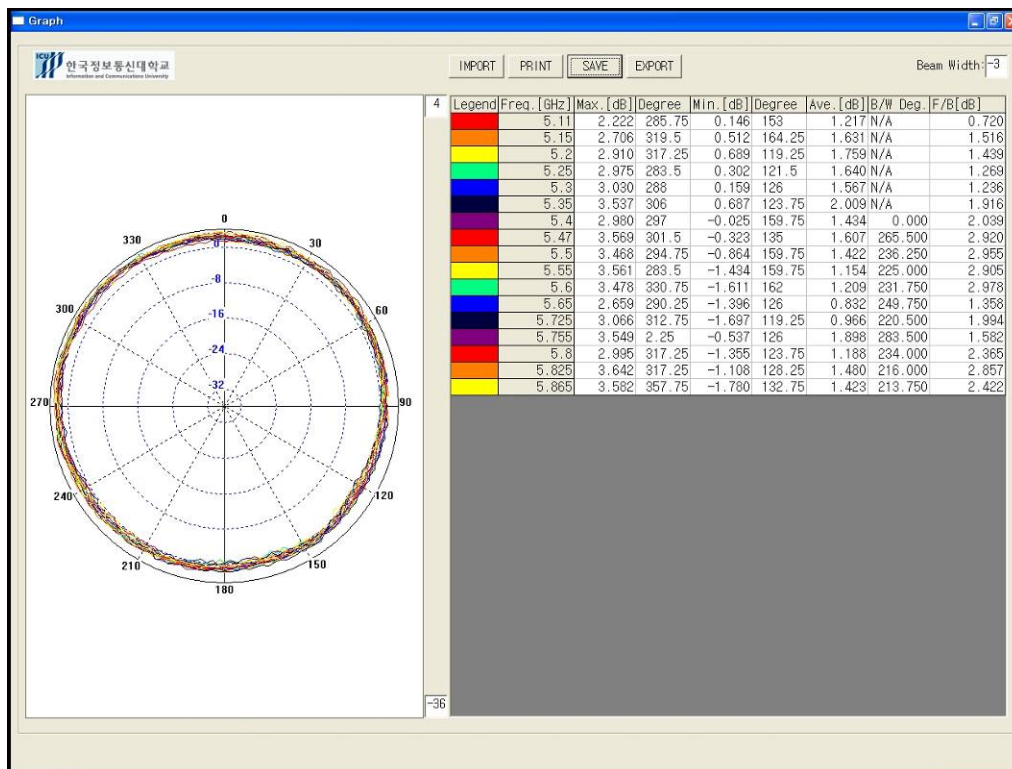
Fig 6. Gain Patterns

a. Azimuth Pattern

2400 MHz ~ 2483.5 MHz

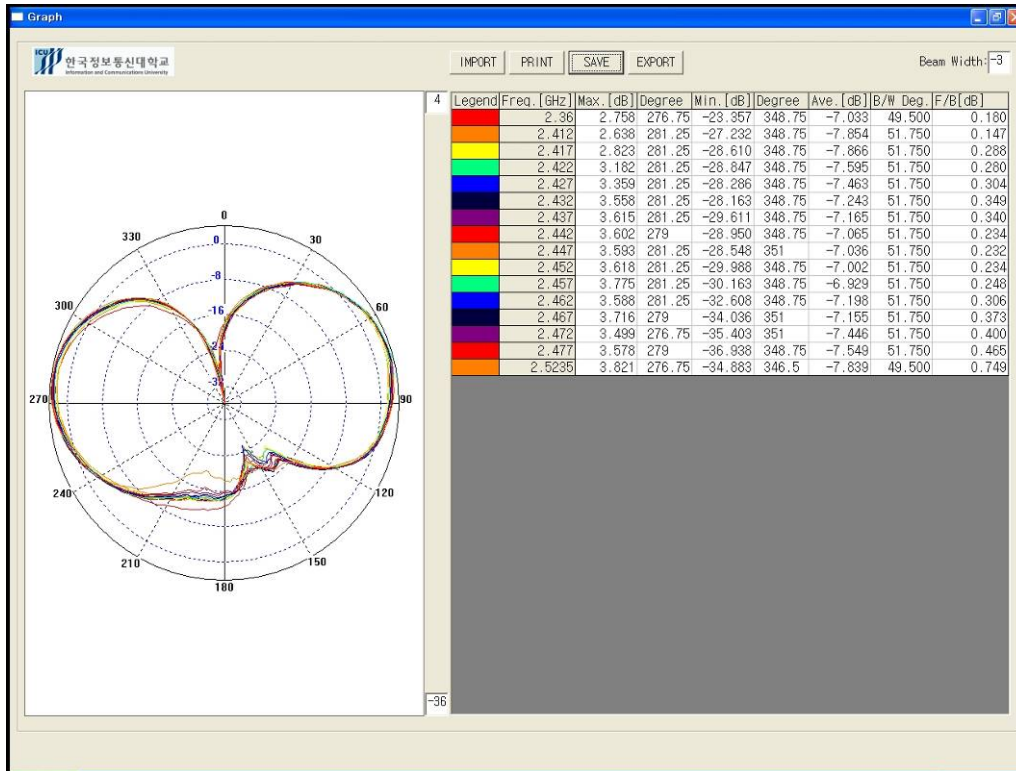


5150 MHz ~ 5825 MHz



b. Elevation Pattern

2400 MHz ~ 2483.5 MHz



5150 MHz ~ 5825 MHz

