



Specifications Sheet

Object	External Antenna	Page	1 of 11
Customer		Date	April 1, 2005
System	W-LAN IEEE 802.11a/b/g	Rev.	IR
Model Name	W5E-WO-03	Written by	W. I. KWAK

Electrical Specifications

Frequency Range (MHz)	2400 ~ 2500	4900 ~ 6000
Band Width (MHz)	100	1100
V.S.W.R (Min)	1.9 : 1	1.9 : 1
Gain (Max)	3.7 ± 1 (dBi)	5 ± 1 (dBi)
Input Impedance	50 (Ω)	
Polarization	Linear	

Mechanical Specifications

Antenna Size (Length x Diameter)	102.8 × 11 mm
Weight	N / A
Radiator Material	Copper
Operation Temperature	- 30 ~ 70 ($^{\circ}\text{C}$)
Operation Humidity	10 ~ 90 (%)

Option	
Remarks	

WINiZEN Co., Ltd.

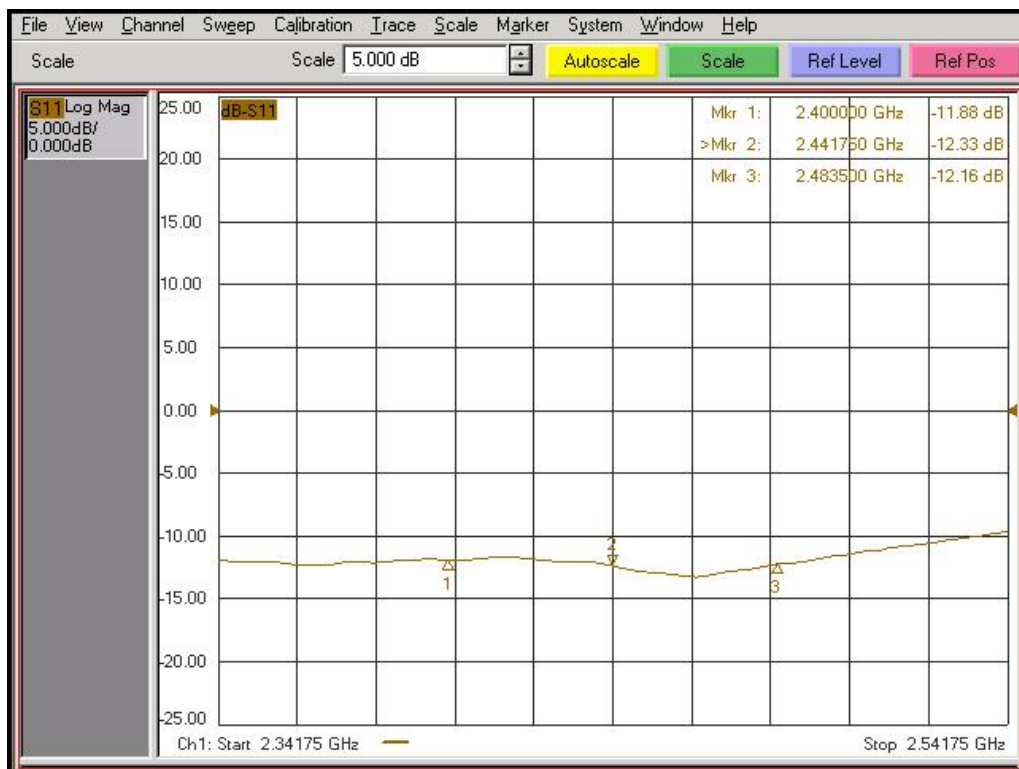


Fig 1. Return Loss (Agilent E8357A 300KHz~6GHz PNA Series Network Analyzer)

a. 2400 MHz ~ 5875 MHz



b. 2400 MHz ~ 2483.5 MHz



c. 4900 MHz ~ 5875 MHz



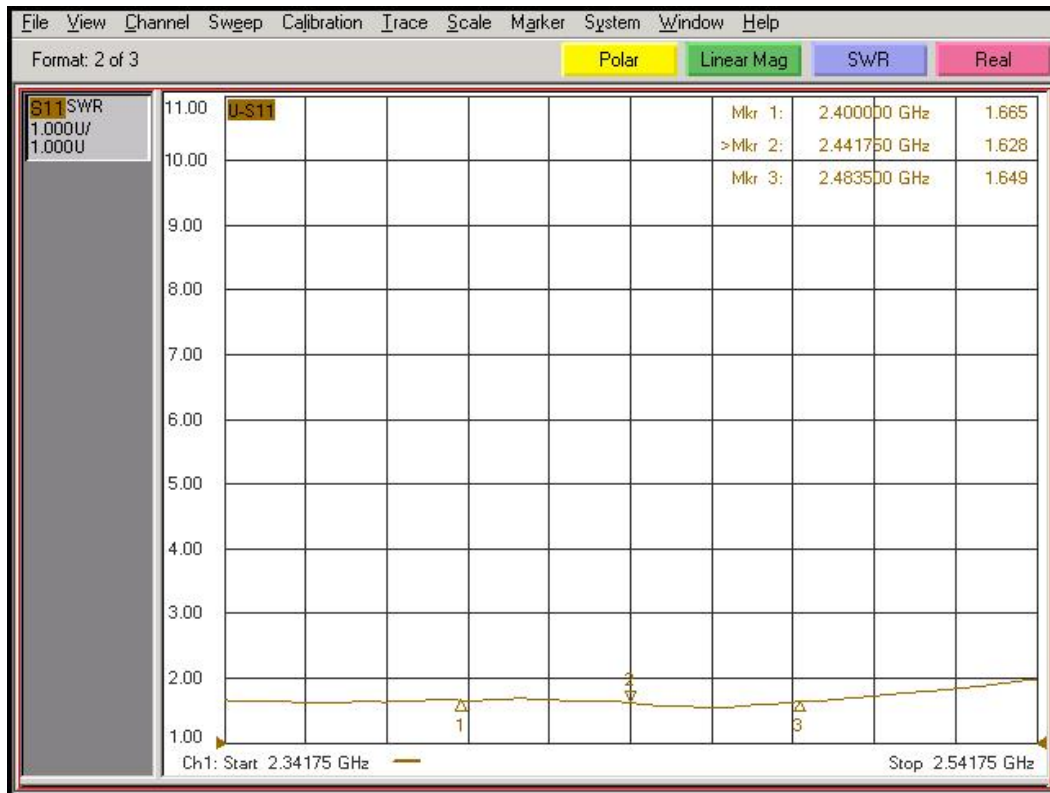
Fig 2. V.S.W.R (Agilent E8357A 300KHz~6GHz PNA Series Network Analyzer)

a. 2400 MHz ~ 5875 MHz





b. 2400 MHz ~ 2483.5 MHz

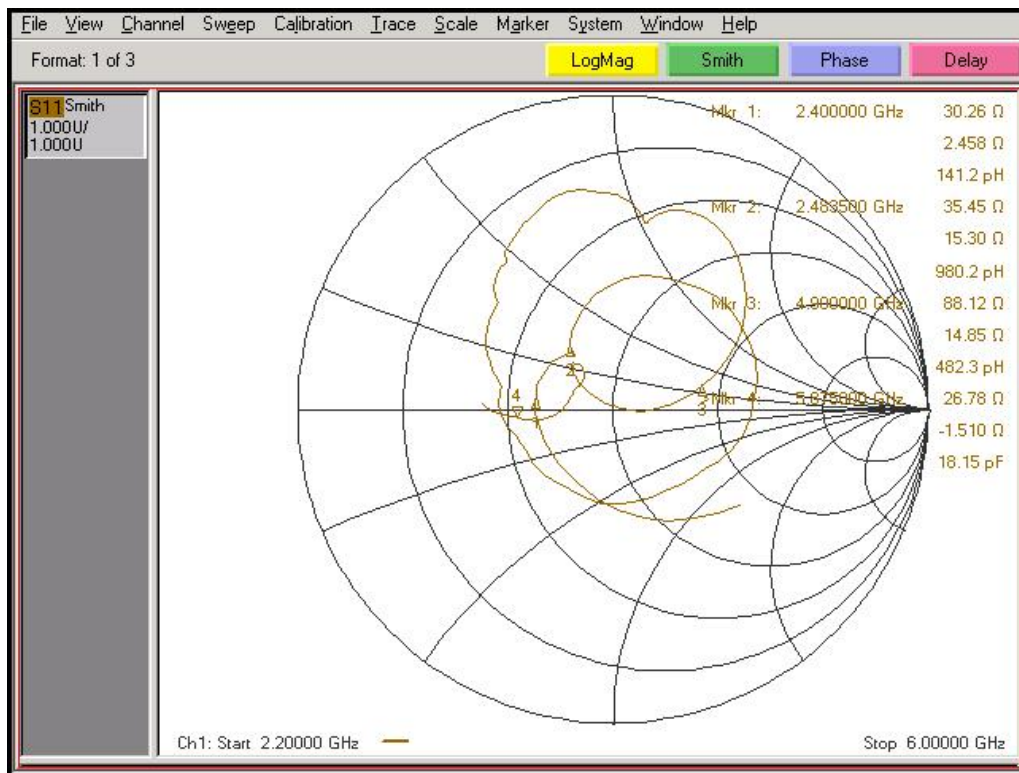


c. 4900 MHz ~ 5875 MHz

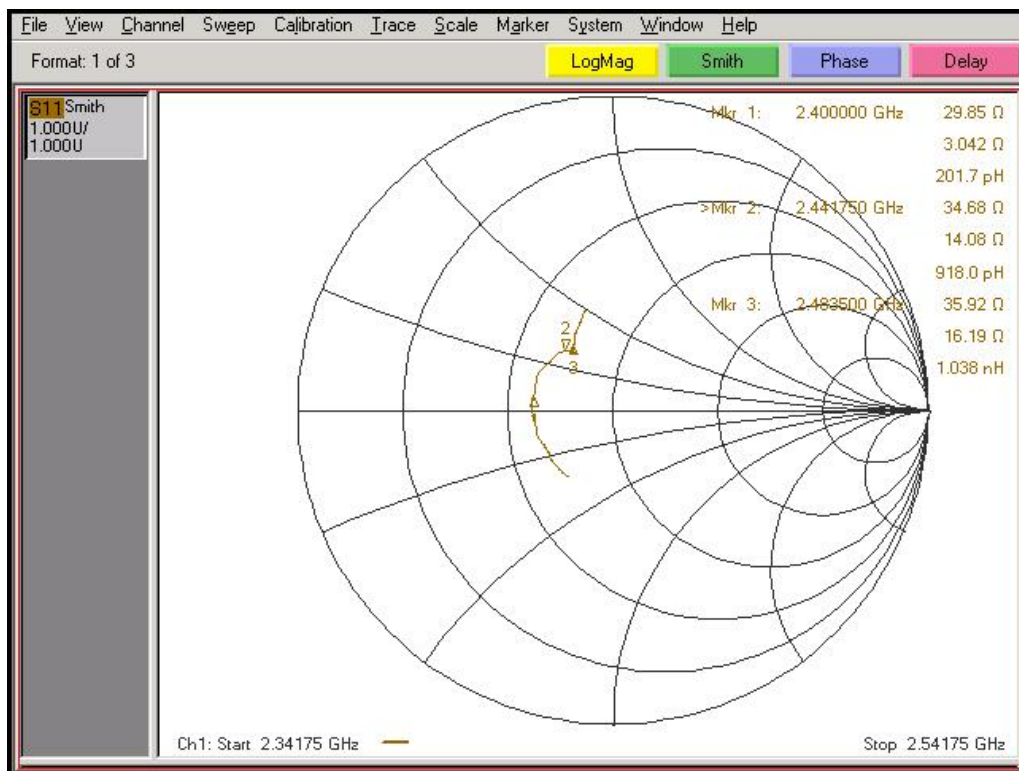


Fig 3. Smith Chart (Agilent E8357A 300KHz ~ 6GHz PNA Series Network Analyzer)

a. 2400 MHz ~ 5875 MHz



b. 2400 MHz ~ 2483.5 MHz



c. 4900 MHz ~ 5875 MHz

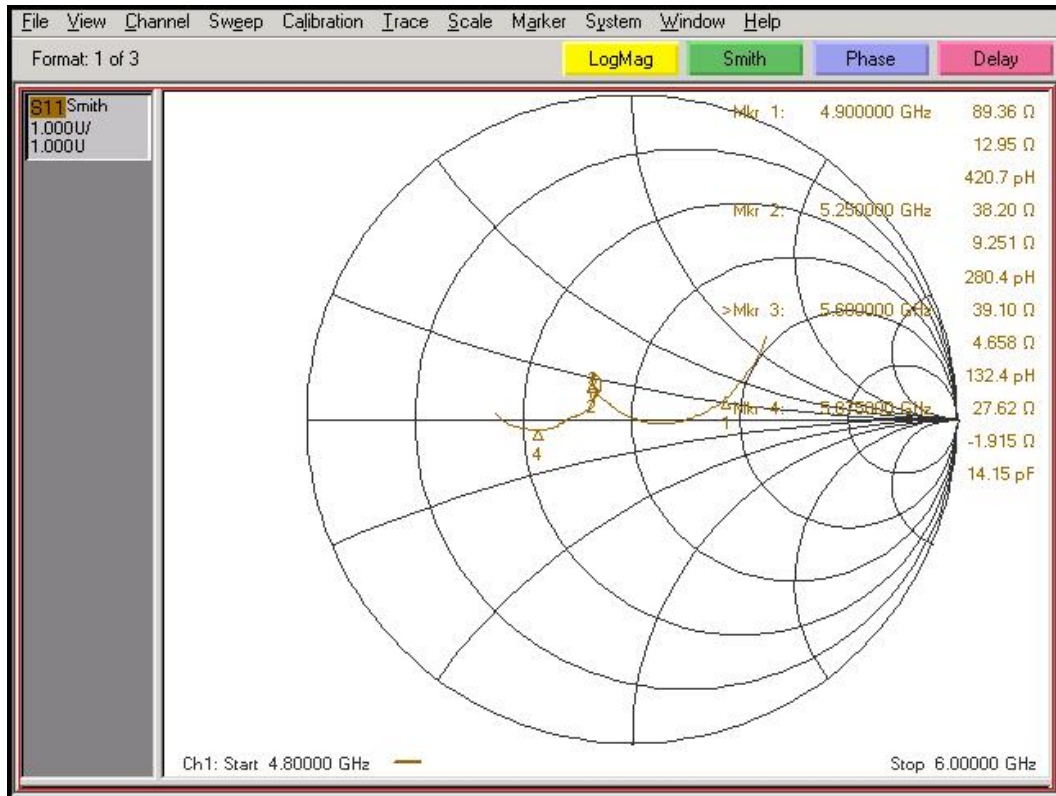


Fig 4. Measurement Configuration

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

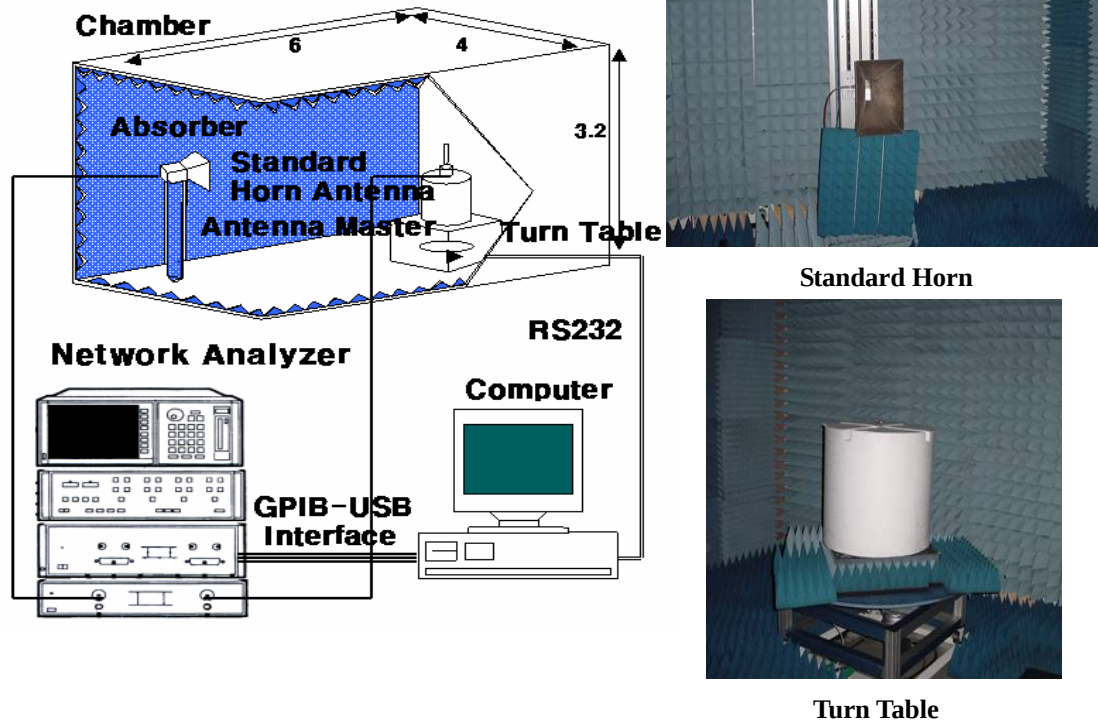
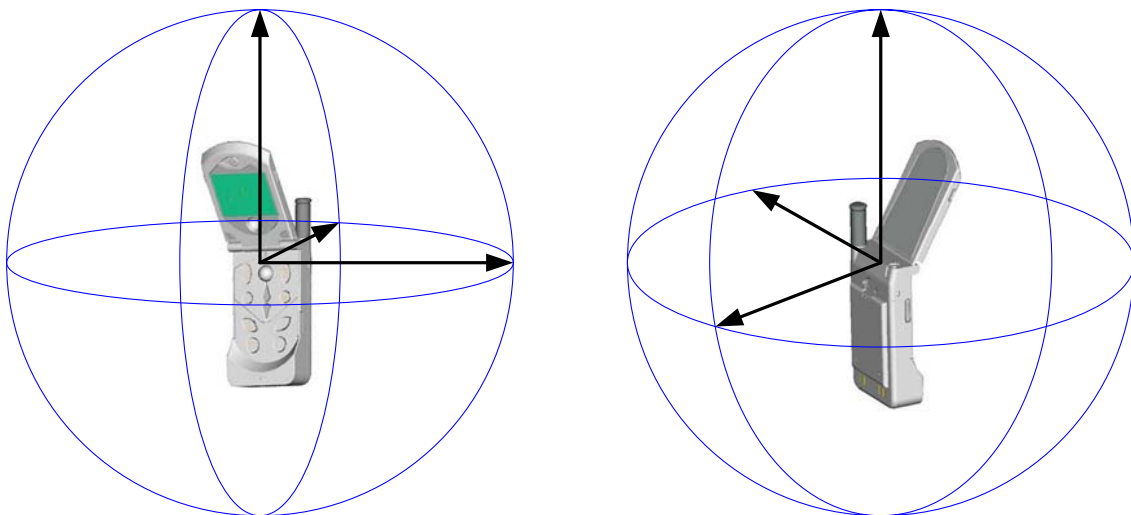


Fig 5. Axis Definitions (Antenna Center)

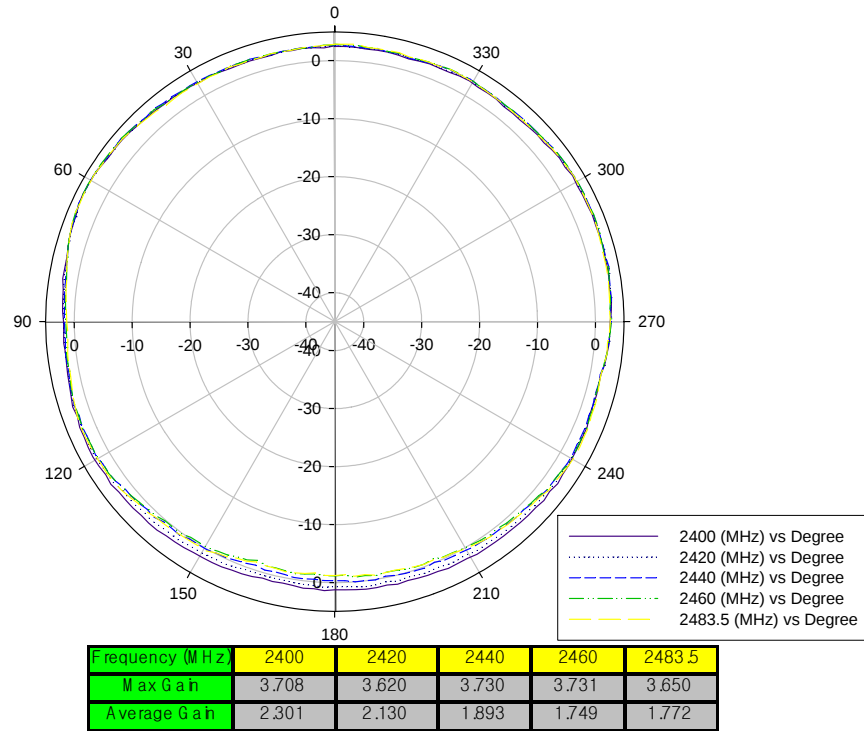


- a. Azimuth Pattern (Co-pol) : XY Plane ; Horn Antenna Polarization : Vertical
- b. Elevation Pattern (Co-pol) : XZ Plane ; Horn Antenna Polarization : Horizontal
- c. Elevation Side Pattern (Co-pol) : YZ Plane ; Horn Antenna Polarization : Horizontal

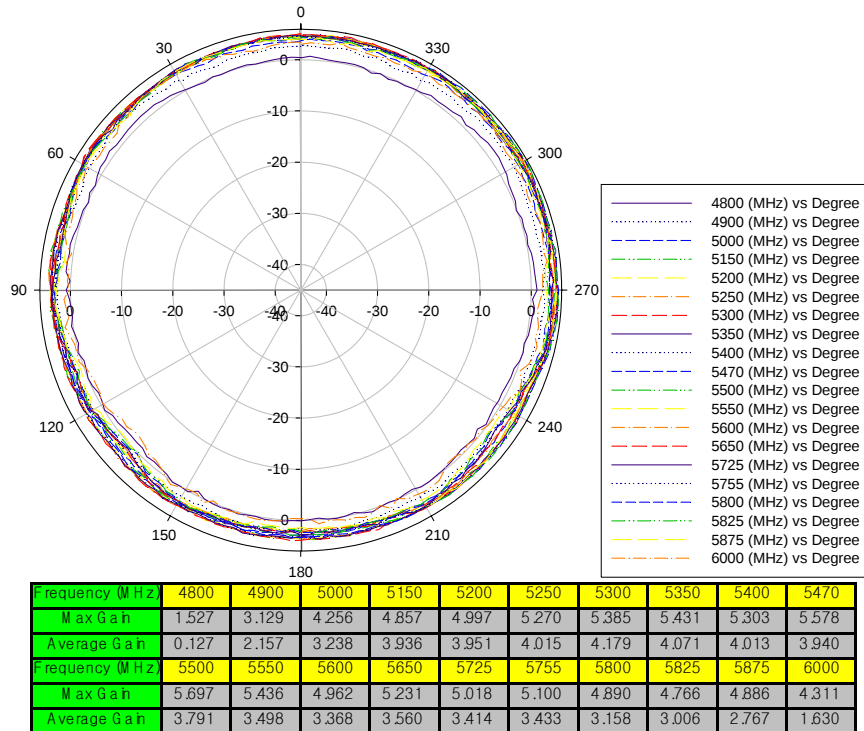
Fig 6. Gain Patterns

a. Azimuth Pattern

2400 MHz ~ 2483.5 MHz

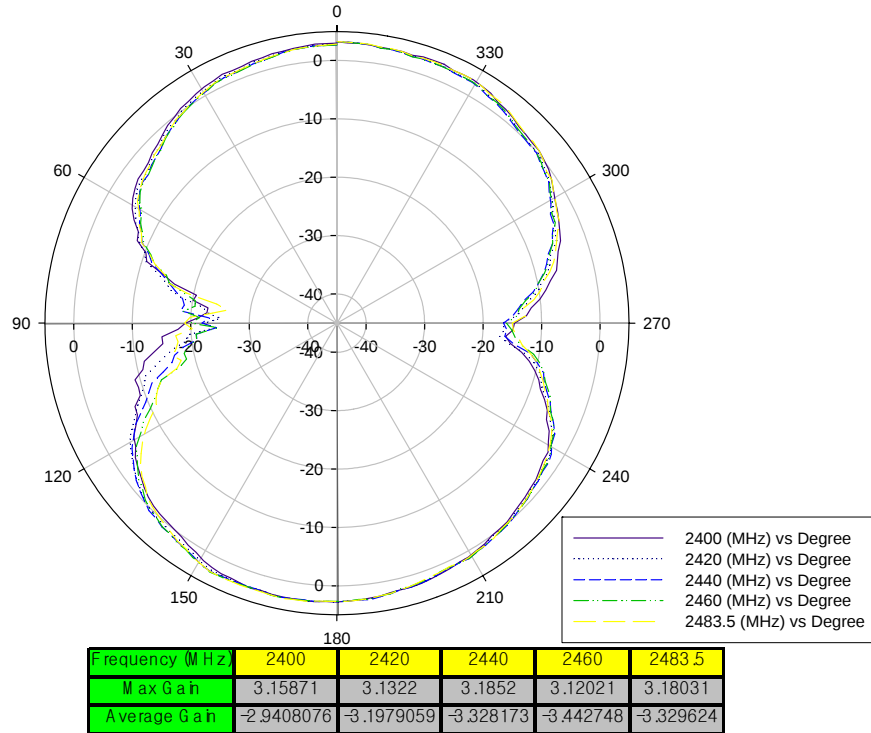


4800 MHz ~ 6000 MHz

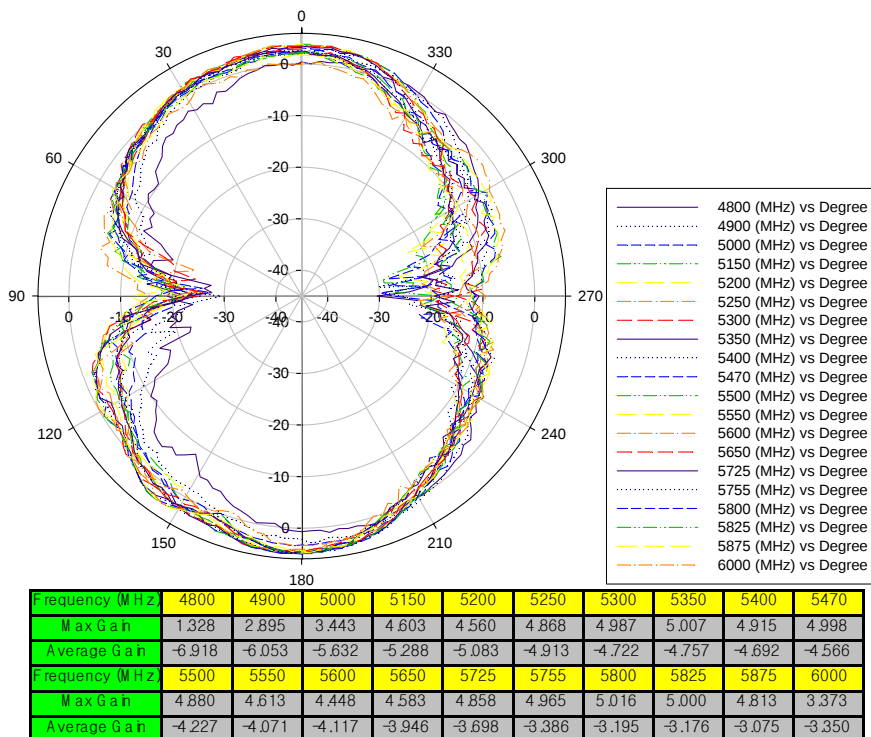


b. Elevation Pattern

2400 MHz ~ 2483.5 MHz



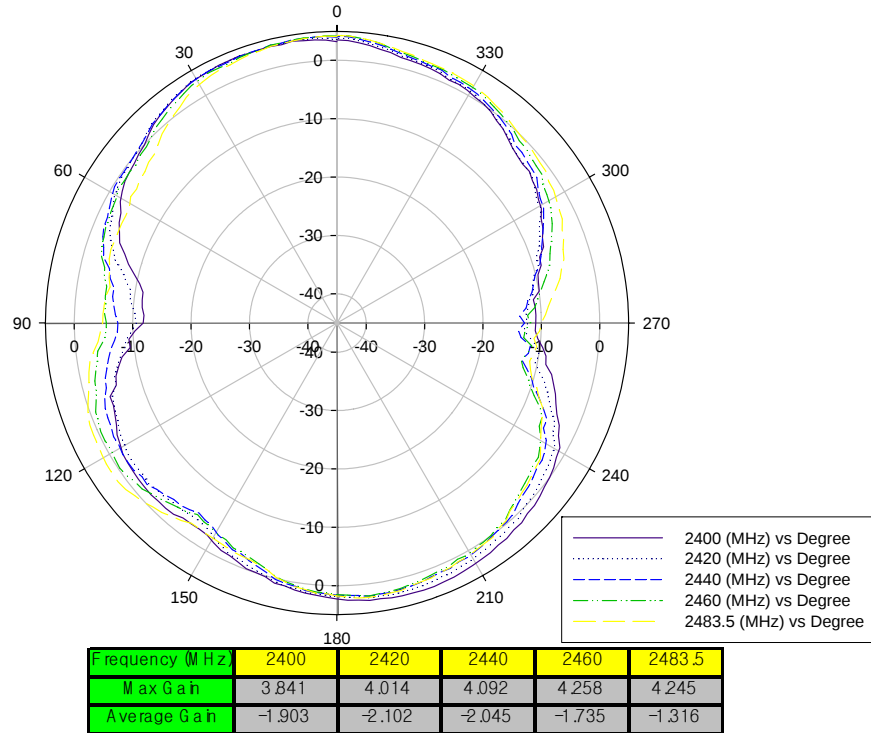
4800 MHz ~ 6000 MHz





c. Elevation Side Pattern

2400 MHz ~ 2483.5 MHz



4800 MHz ~ 6000 MHz

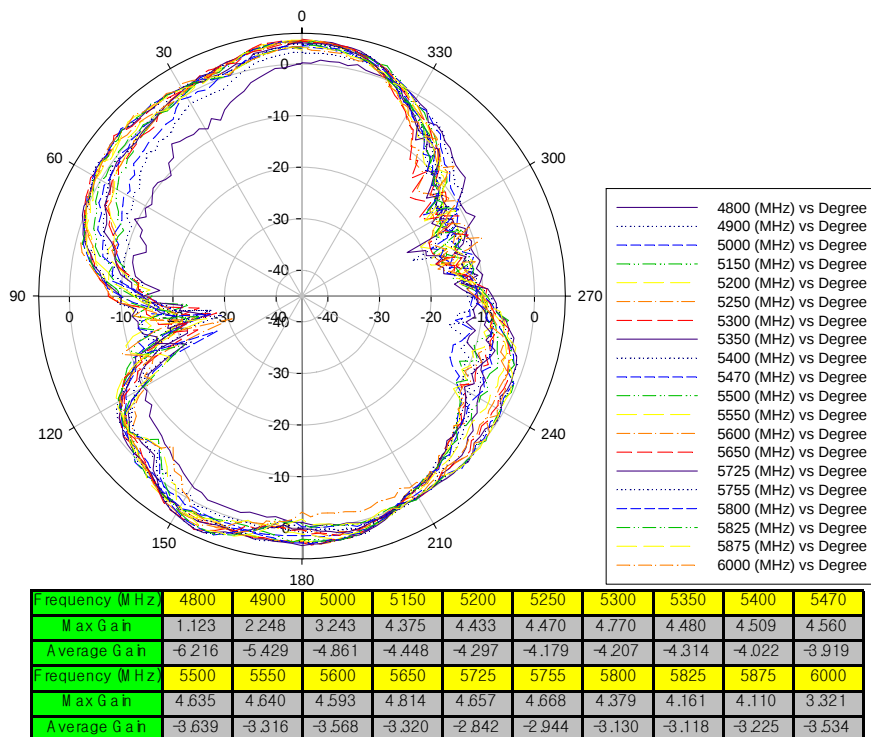


Fig 7. Mechanical Drawing

