



## Specifications Sheet

<b>Object</b>	External Dipole Antenna	<b>Page</b>	1 of 7
<b>Customer</b>		<b>Date</b>	August 19, 2005
<b>System</b>	WLAN/ Bluetooth/ Zigbee	<b>Rev.</b>	B
<b>Model Name</b>	W5E-WO-03	<b>Written by</b>	

### Electrical Specifications

<b>Frequency Range ( MHz )</b>	2400 ~ 2483.5
<b>Band Width ( MHz )</b>	83.5
<b>V.S.W.R ( Min )</b>	1.9 : 1
<b>Gain ( Max )</b>	$3 \pm 0.5$ ( dBi )
<b>Input Impedance</b>	50 ( $\Omega$ )
<b>Polarization</b>	Linear

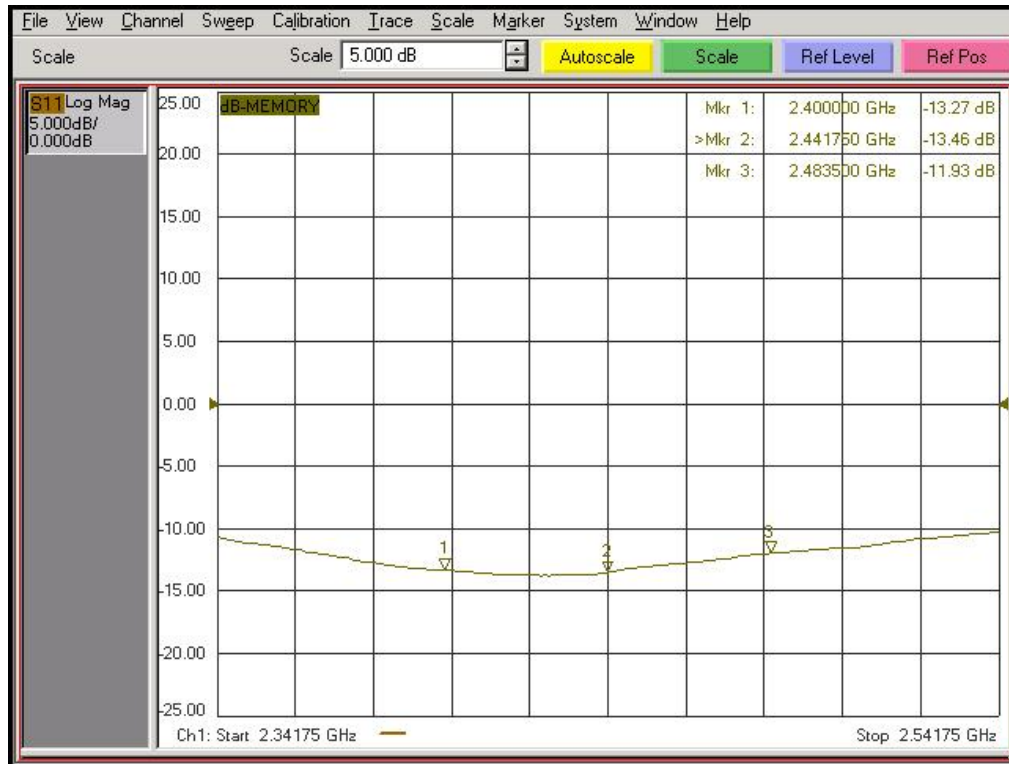
### Mechanical Specifications

<b>Antenna Size ( Length x Diameter )</b>	102.8 × 11 mm
<b>Weight</b>	12.5 ± 2 g
<b>Radiator Material</b>	Copper
<b>Operation Temperature</b>	- 20 ~ 70 ( $^{\circ}\text{C}$ )
<b>Operation Humidity</b>	10 ~ 90 ( % )

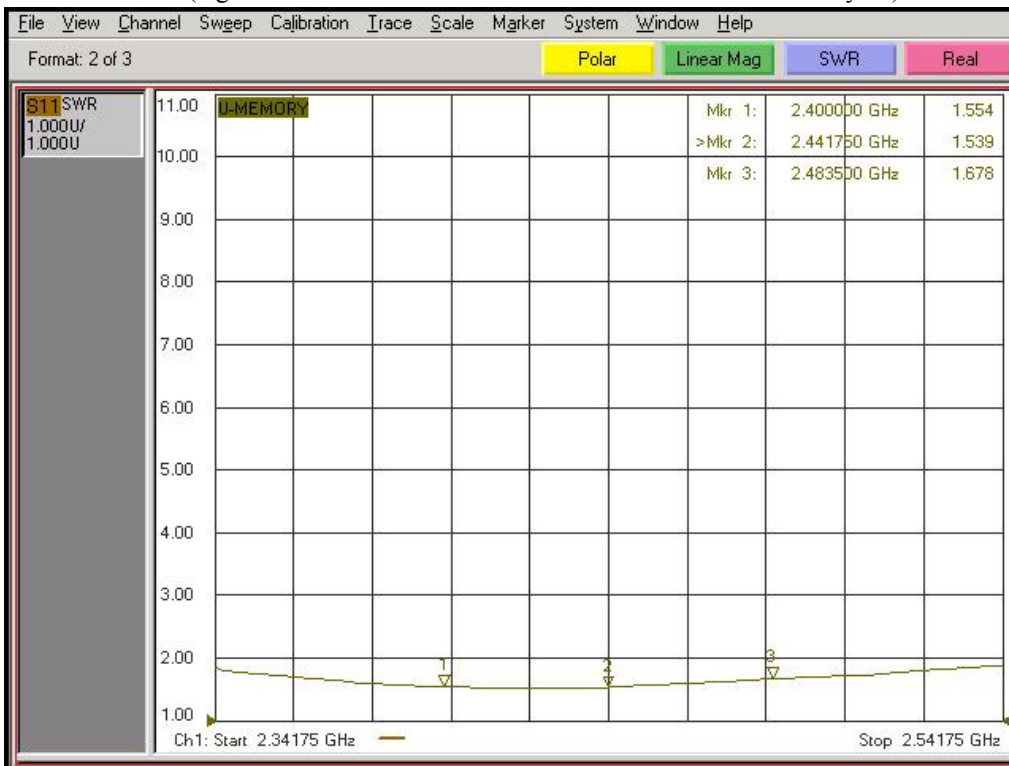
<b>Option</b>	
<b>Remarks</b>	

**WINiZEN Co., Ltd.**

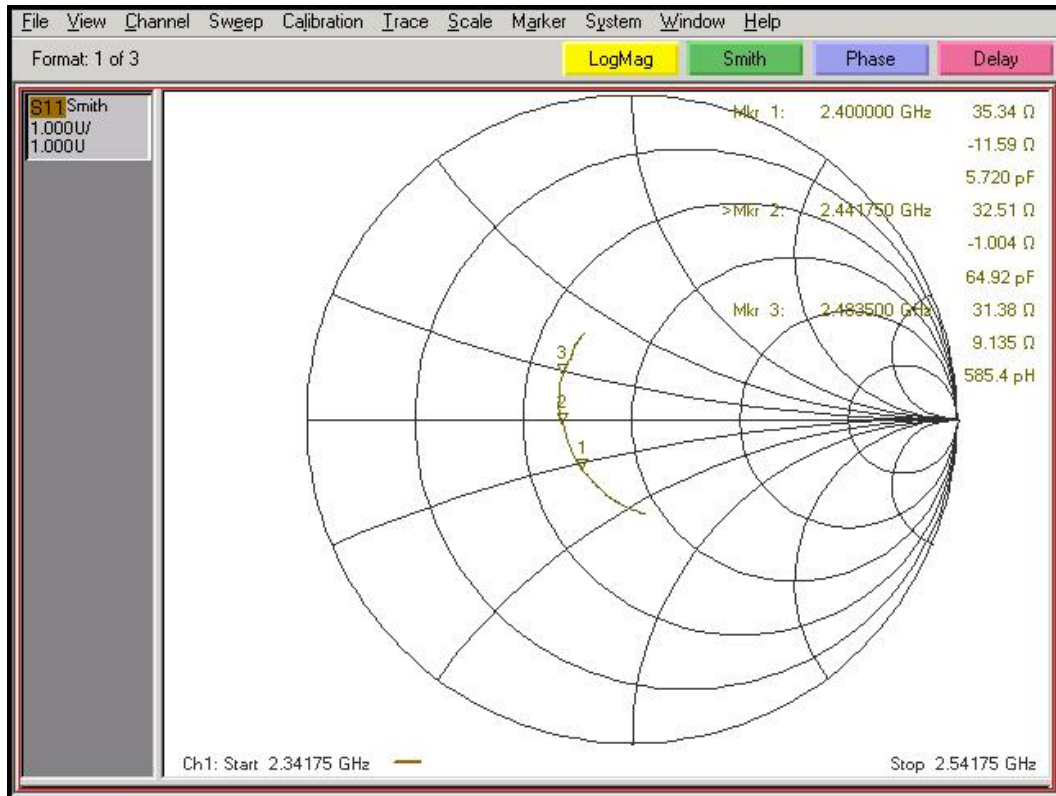
**Fig 1. Return Loss** (Agilent E8357A 300KHz~6GHz PNA Series Network Analyzer)



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

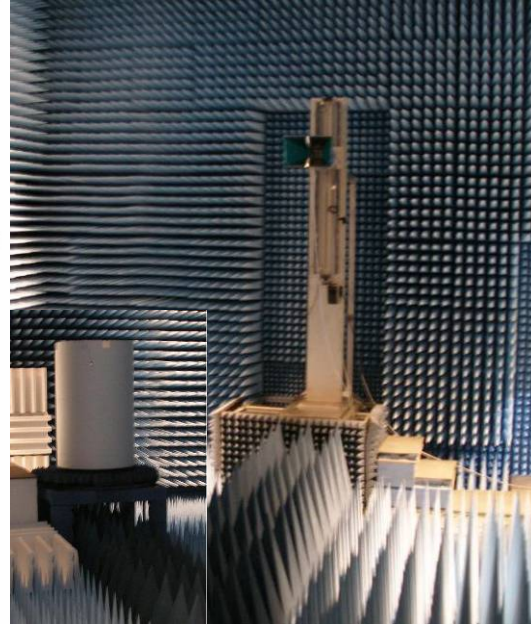
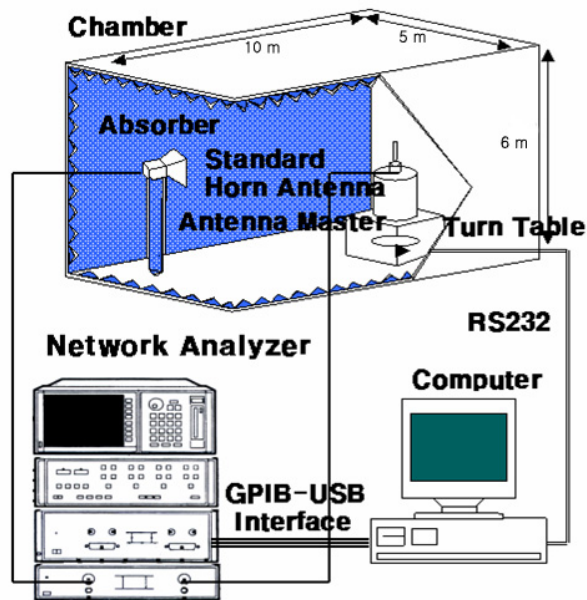


**Fig 3. Smith Chart** (Agilent E8357A 300KHz~6GHz PNA Series Network Analyzer)

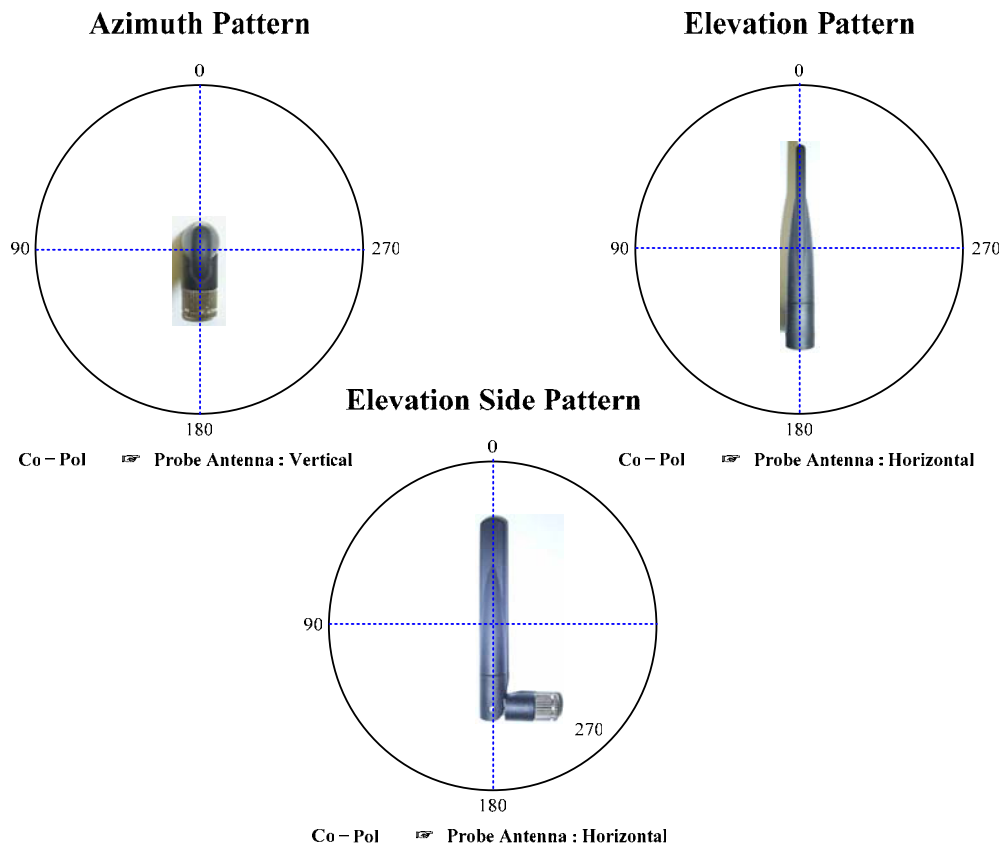


**Fig 4. Measurement Configuration**

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

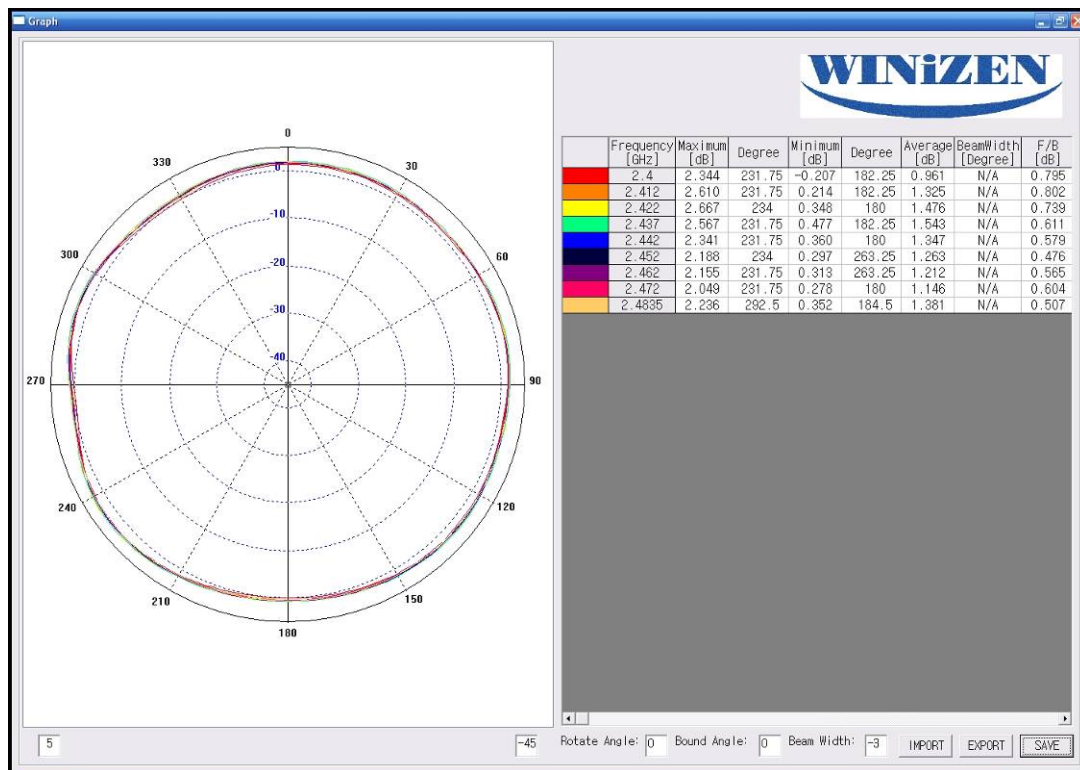


**Fig 5. Axis Definitions** (Antenna Center)

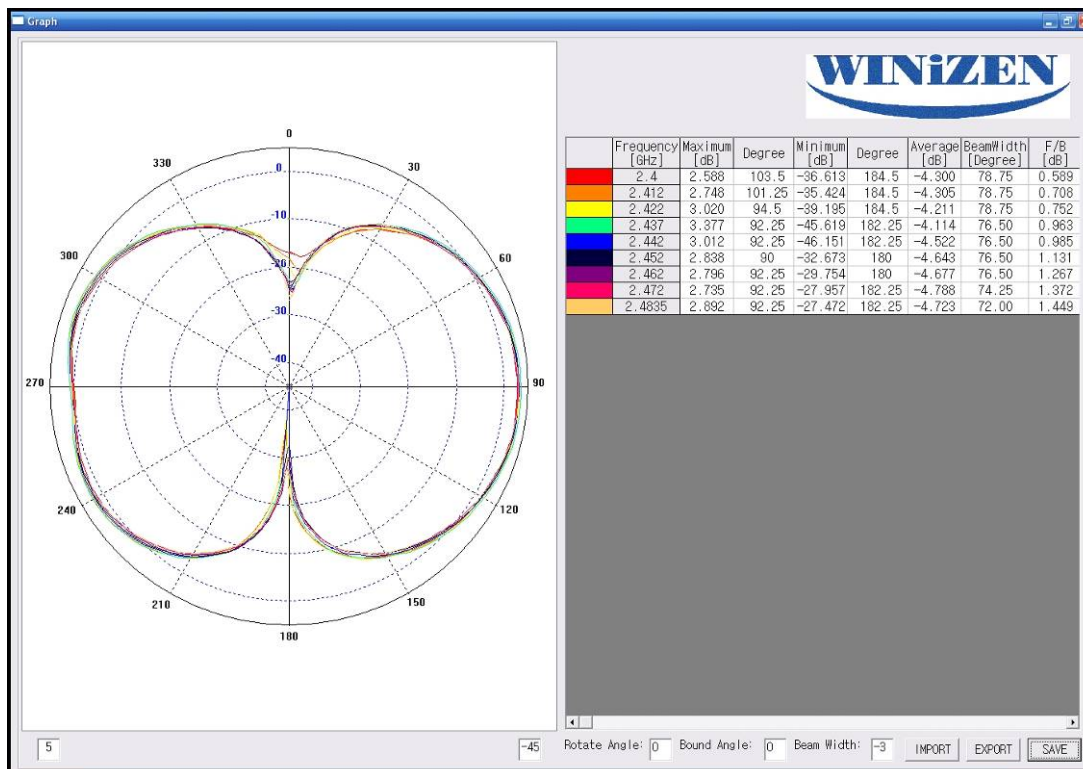


**Fig 6. Gain Patterns**

**a. Azimuth Pattern**

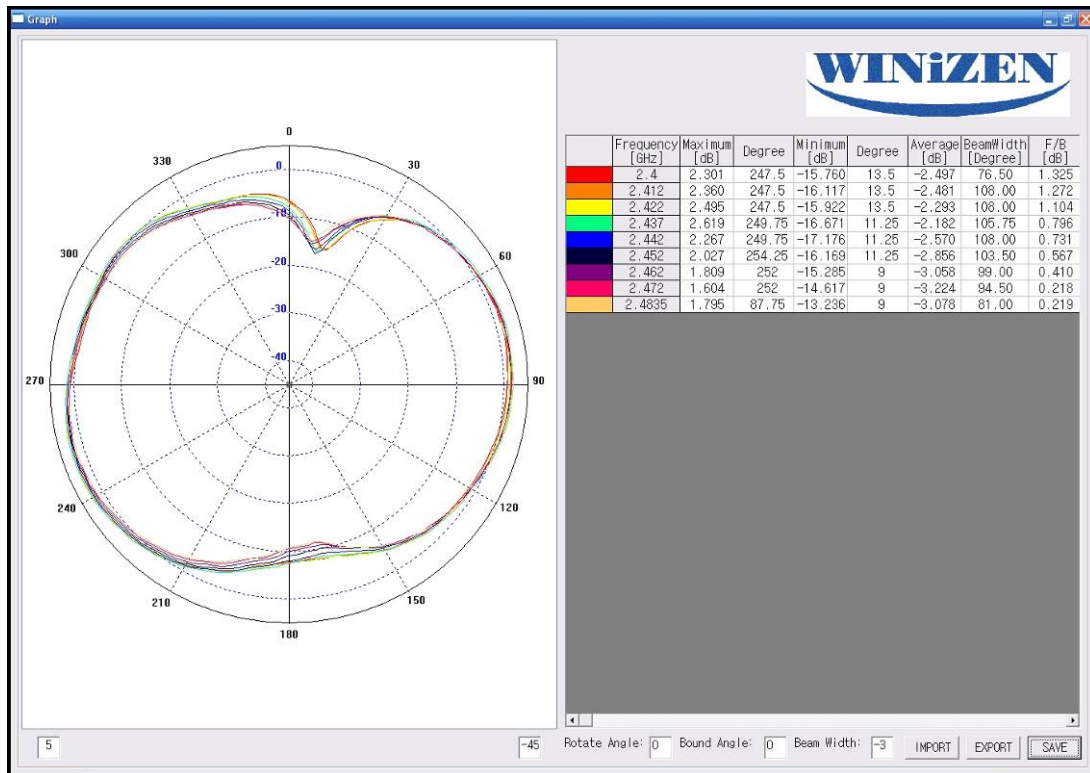


**b. Elevation Pattern**





### c. Elevation Side Pattern



**Fig 7. Antenna Mechanical**

