



Specifications Sheet

Object	Chip Antenna	Page	1 of 8
Customer		Date	March 27, 2006
System	2.4 GHz Bluetooth/ WiFi/Zigbee	Rev.	B
Model Name	W5I-BF-RS12	Written by	

Electrical Specifications

Frequency Range (MHz)	2400 ~ 2500
Band Width (MHz)	100
V.S.W.R (Min)	1.9 : 1
Gain (Max)	2.695 (dBi)
Input Impedance	50 (Ω)
Polarization	Linear

Mechanical Specifications

Antenna Size (Width x Length x Height)	10 × 4 × 1.2 mm
Weight	N / A
Radiator Material	Copper
Operation Temperature	- 30 ~ 90 (°C)
Operation Humidity	10 ~ 90 (%)

Option	
Remarks	The performance data was measured with a test board at an ideal condition. The performance will vary in specific applications.

WINiZEN Co., Ltd.

Fig 1. Return Loss (Agilent E8358A 300KHz~9GHz PNA Series Network Analyzer)

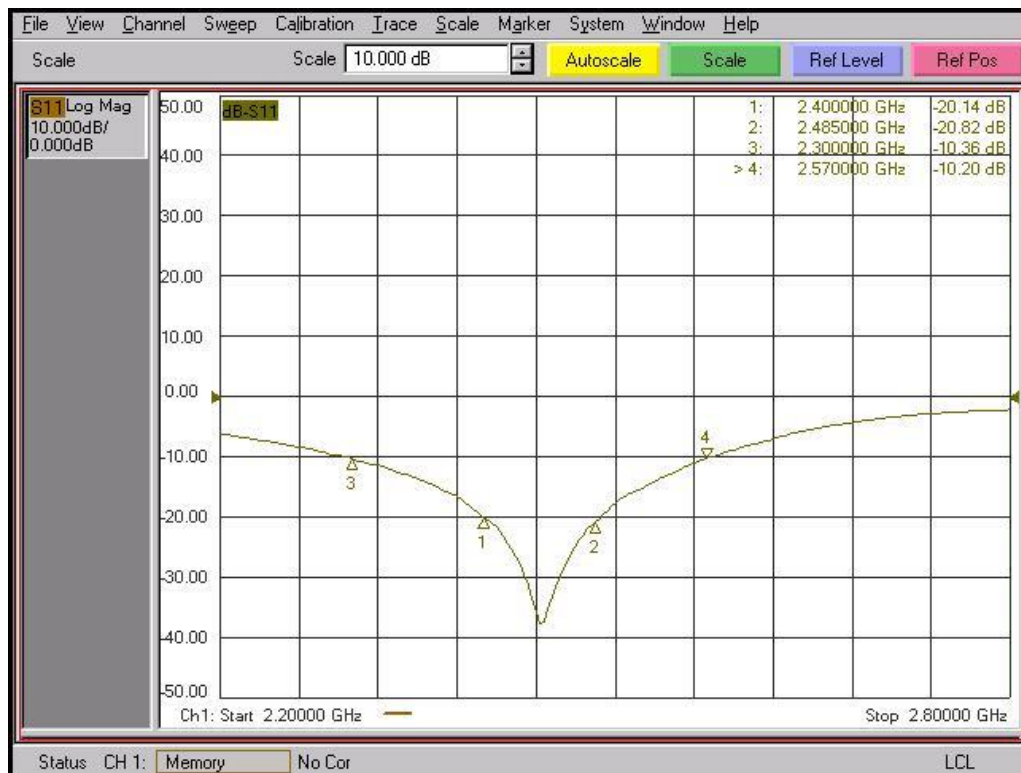


Fig 2. V.S.W.R (Agilent E8358A 300KHz~9GHz PNA Series Network Analyzer)

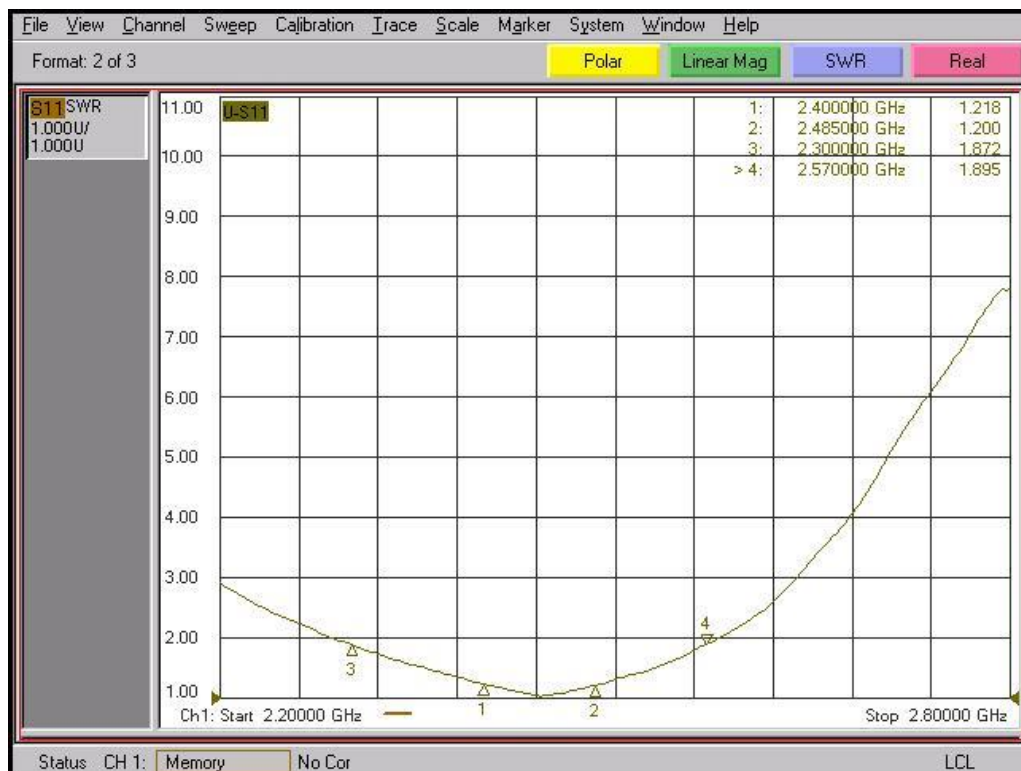


Fig 3. Smith Chart (Agilent E8358A 300KHz ~ 9GHz PNA Series Network Analyzer)

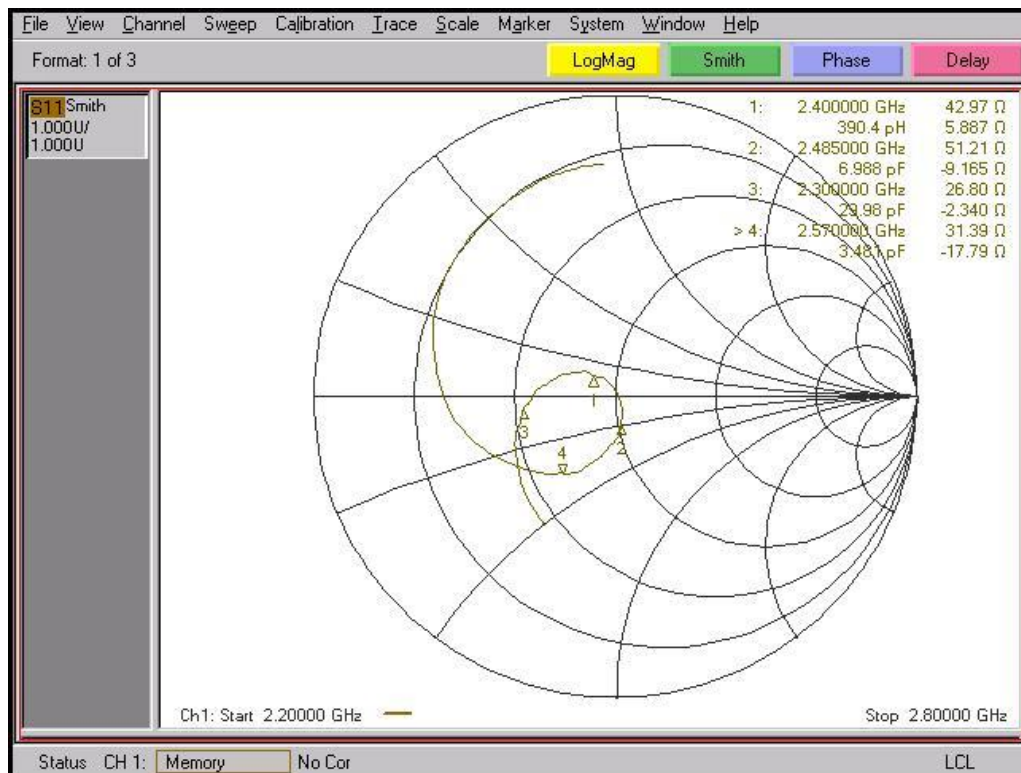


Fig 4. Measurement Configuration

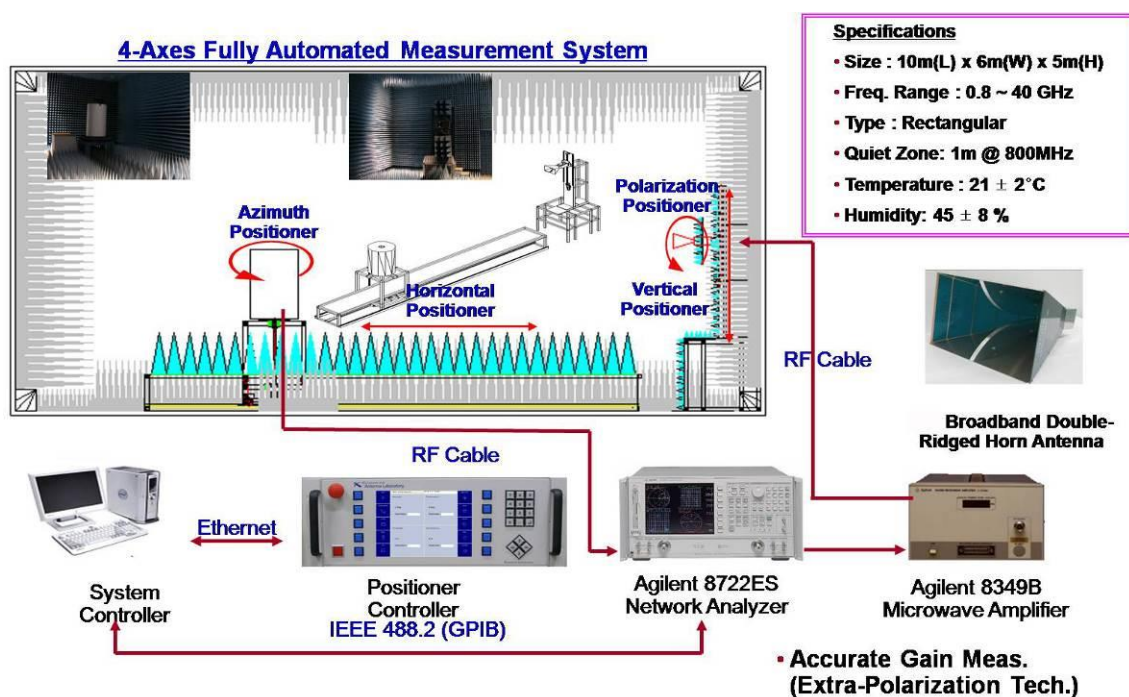




Fig 5. Axis Definitions (Antenna Center)

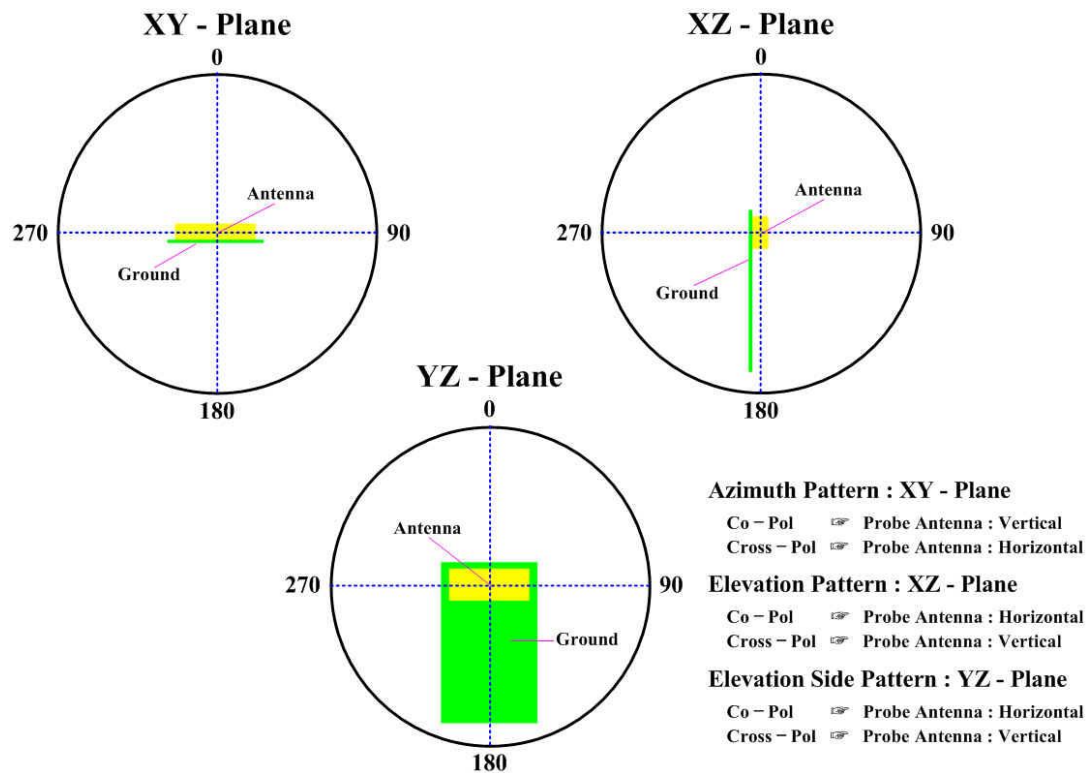
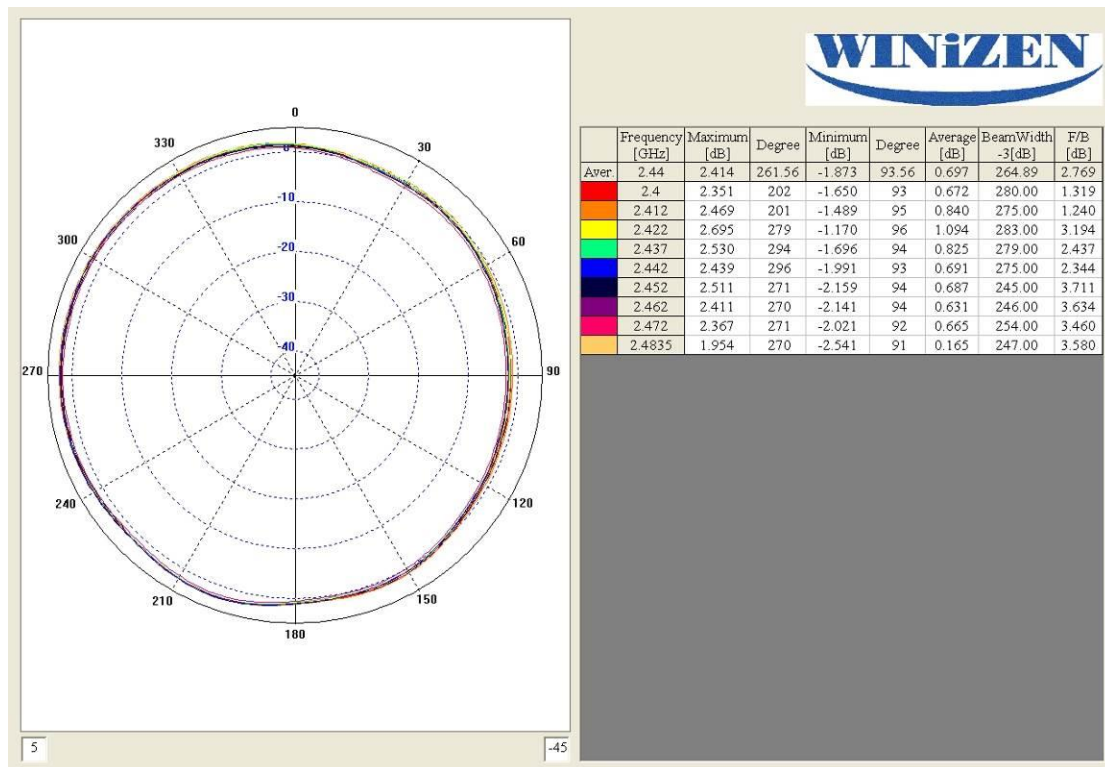


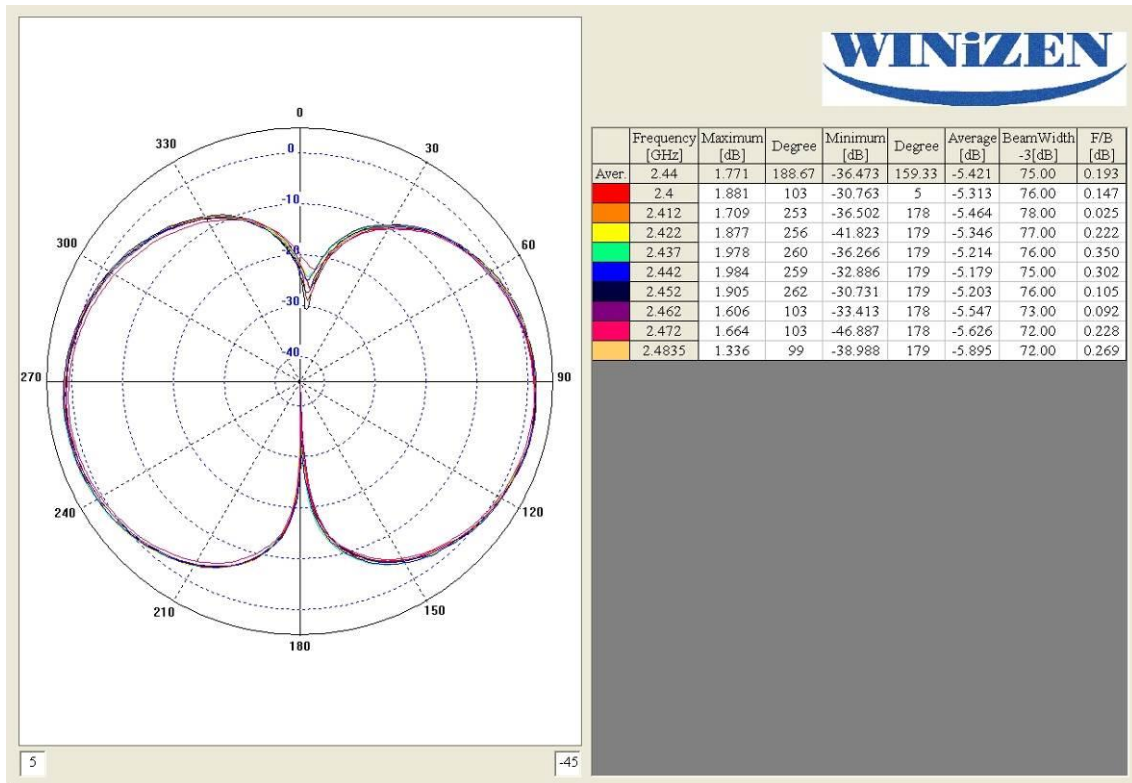
Fig 5. Gain Patterns

a. Azimuth Pattern





b. Elevation Pattern



c. Elevation Side Pattern

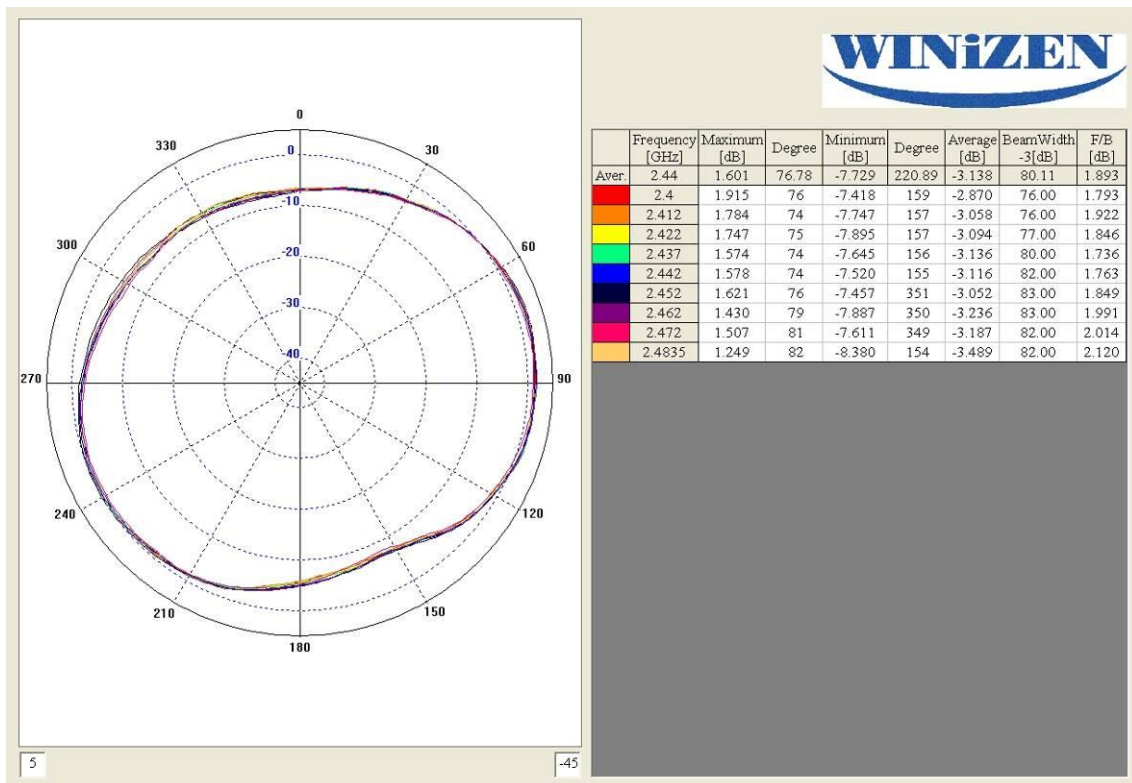


Fig 6. Antenna Mounting & PCB pad design

<1> 공통 사항

① 선홍색 :

- a. Antenna Signal Line.
- b. 50 Ohm 설계 (Coplanar Waveguide로 설계).
- c. 선로에 " π " Matching 단 삽입.

② 파란색 :

Signal, Ground 와 전기적으로 단락되고 안테나 고정을 위한 Soldering Pad.

③ 하늘색 :

안테나 고정을 위한 Soldering Pad.

④ 노란색 :

PCB상의 Ground.

안테나가 장착되는 TOP면을 제외하고 다른 모든 Layer층에서는 Bottom면과 같이 설계.

⑤ 초록색 :

기생 소자와 안테나 Soldering 영역을 보호하기 위한 Painting 영역.

⑥ 갈색 :

안테나 Ground Matching 을 위한 기생소자 Soldering Pad.

