

SPECIFICATION FOR APPROVAL

CUSTOMER: Compal Communications, Inc

CUSTOMER P/N : DC33000DR10

MODEL NAME: CP01 Antenna-Left

A-CON P/N: APP8P-70001-3

Customer Approval

R&D Manager

ACON Approved

<i>Allen</i>	<i>Allen</i>	<i>Ref 4/8/08</i>	<i>Eway</i>	<i>Meya</i>
R&D Manager / Allen.Hsiao	Mechanical Manager / Allen.Hsiao	Q&R Manager / Rex.Ou	Project Engineer / Eway..Tseng	Product Manager / Meya.Huang



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1. Description-----	1
1.1 Specifications-----	1
1.2 Antenna Pictures-----	1
2. Electrical Specification-----	2
2.1 Test Equipment-----	2
2.2 Test Setup-----	2
2.2.1 Frequency Range-----	2
2.2.2 VSWR-----	2
2.2.3 Radiation Pattern & Gain-----	2
3. Performance Data-----	4
3.1 VSWR-----	4
3.2 Radiation pattern & Gain -----	5
3.3 Gain -----	8
4. Mechanical Specification-----	8
4.1 Assembly Drawing(WLAN-R Ant.)-----	8

Appendix

- Appendix A** — — SGS report of 1st source Cable
- Appendix A-1** — — SGS report of 2nd source Cable
- Appendix A-2** — — SGS report of 3rd source Cable
- Appendix B** — — SGS report of PCB
- Appendix C** — — SGS report of IPEX

1. Description

1.1 Specifications

Antennas Type	PCB Antenna for WLAN 802.11a/b/g application	
Connector Type	I-PEX Connector for 1.37 cable	
Cable Type	OD 1.37 RF Cable	
Impedance	50Ω	
Polarization	Linear	
Radiation pattern	Omni-directional	
Cable length	WLAN-R(APP8P-700014)	76 mm, Black

1.2 Antenna Pictures



WLAN-L P/N: APP8P-700014

2. Electrical Specification

2.1 Test Equipment

- A. VSWR and input impedance: Agilent 8720/8753 Network Analyzer
- B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

- A. WLAN 802.11 b/g: 2.40~2.50 GHz

2.2.2 VSWR

Step 1: The antenna is arranged on the customer provided test fixture (see figure. 1).

Step 2: The VSWR of the antenna is measured via Agilent 8720/8753 Network Analyzer (see figure. 2).

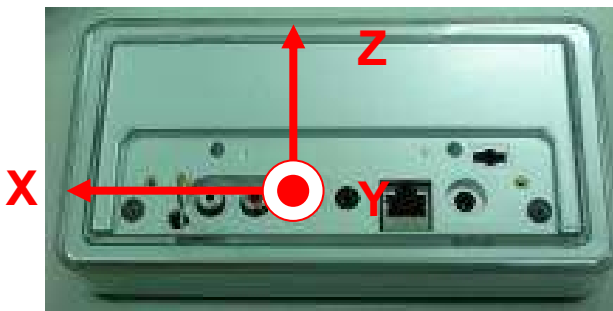


Figure.1



Figure.2

2.2.3 Radiation pattern and Gain

- A. The 3D chamber provides less than -40dB reflectivity from 800MHz to 6GHz and a 40cm diameter spherical quiet zone. The measurement results are calibrated using both dipoles and standard gain horns (see figure. 3).
- B. The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 4).
- C. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure. 5 and 6).

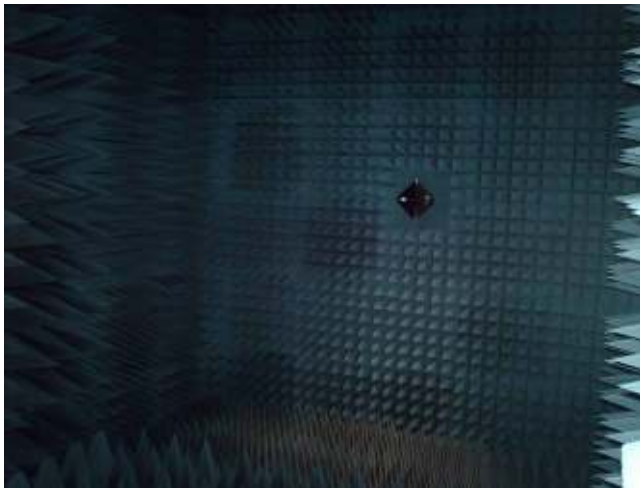


Figure. 3

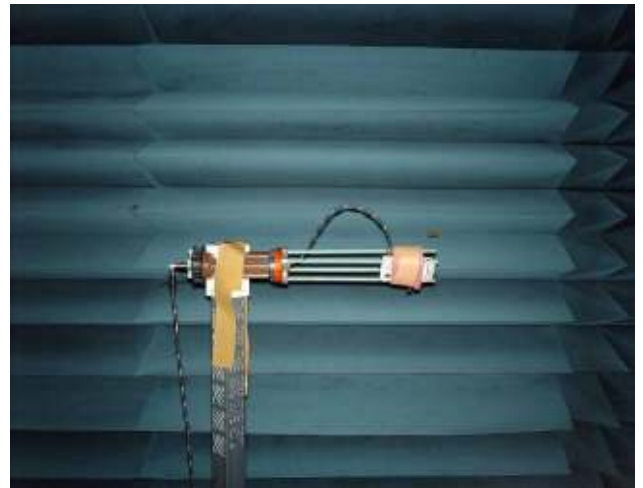


Figure. 4



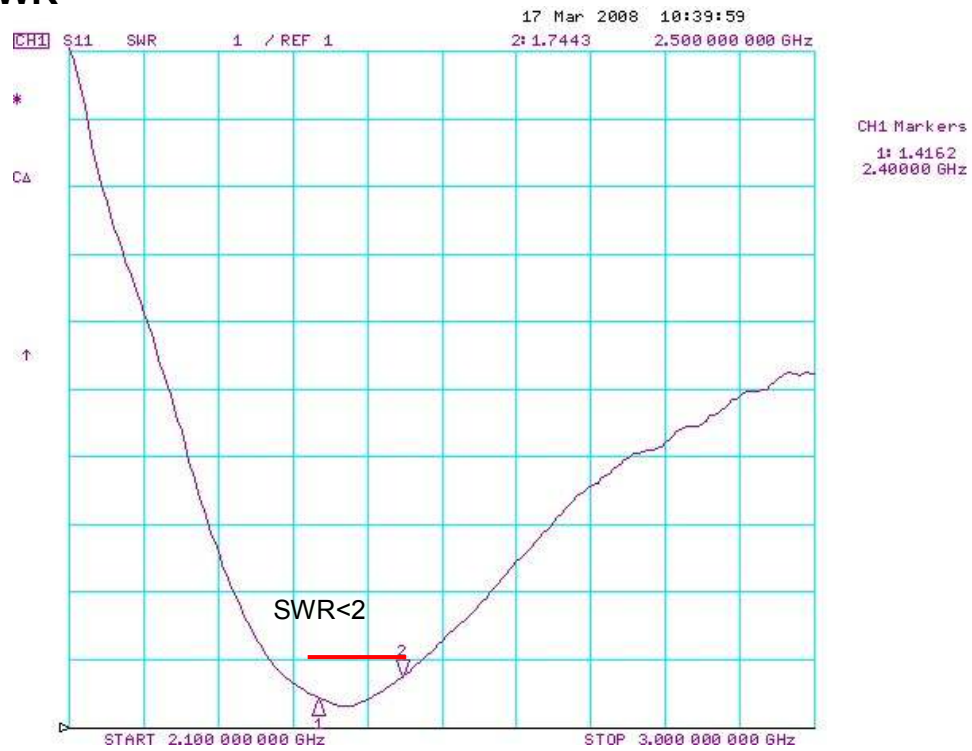
Figure. 5



Figure. 6

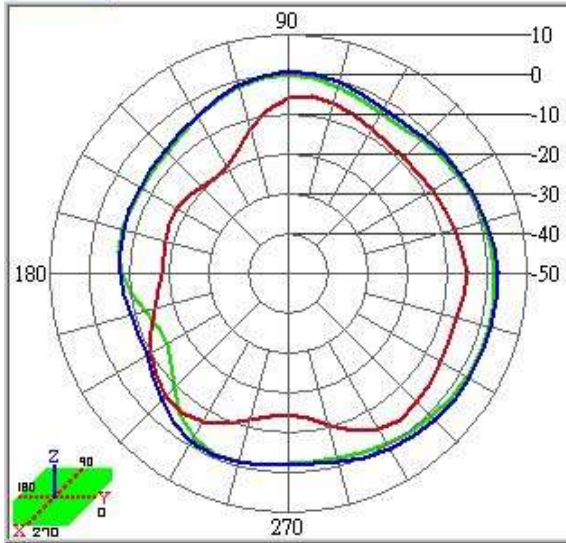
3. Performance Data

3.1 VSWR

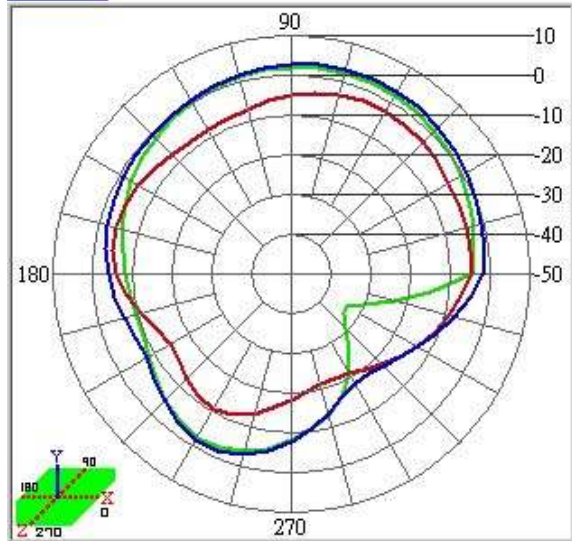


3.2 Radiation pattern & Gain

XY-Plane

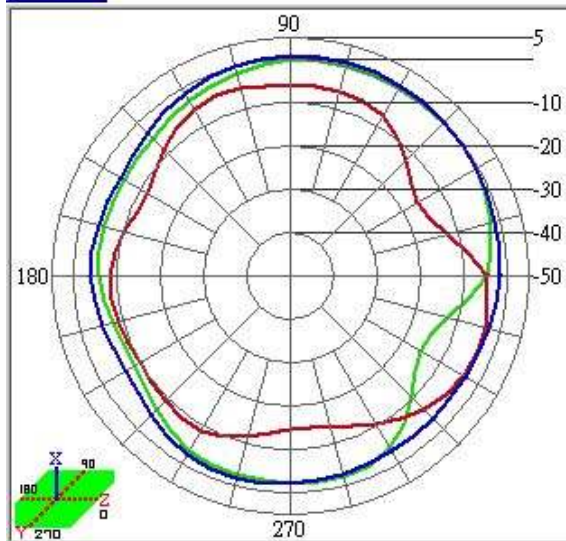


XZ-Plane



-----Horizontal
-----Vertical
-----H+V

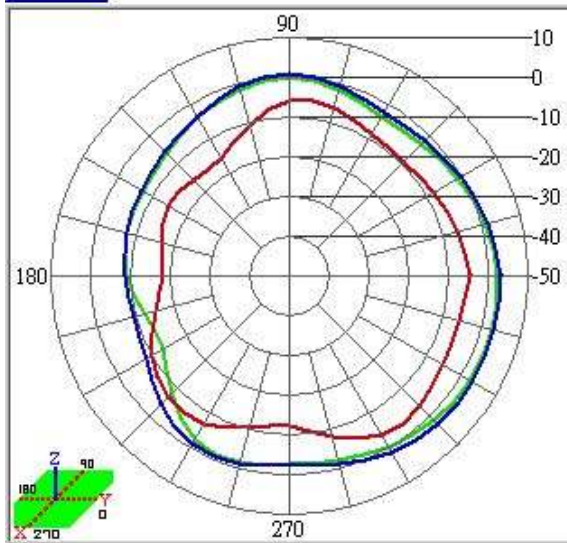
YZ-Plane



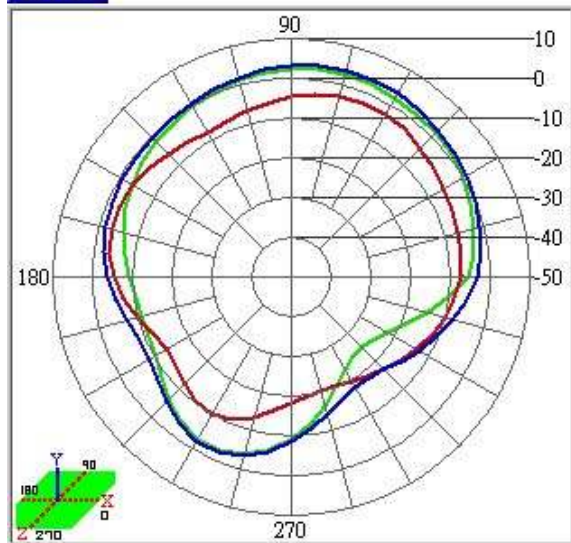
-----Horizontal
-----Vertical
-----H+V

WLAN_R 2400MHz

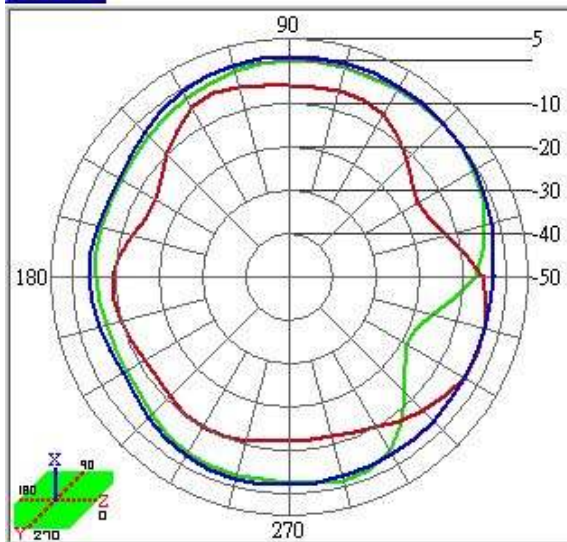
XY-Plane



XZ-Plane



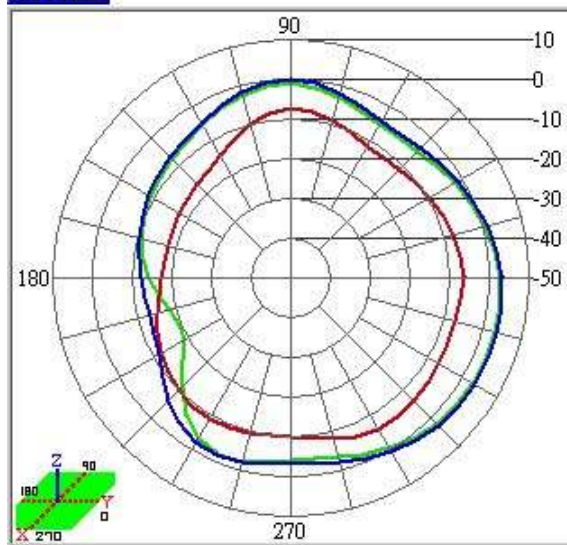
YZ-Plane



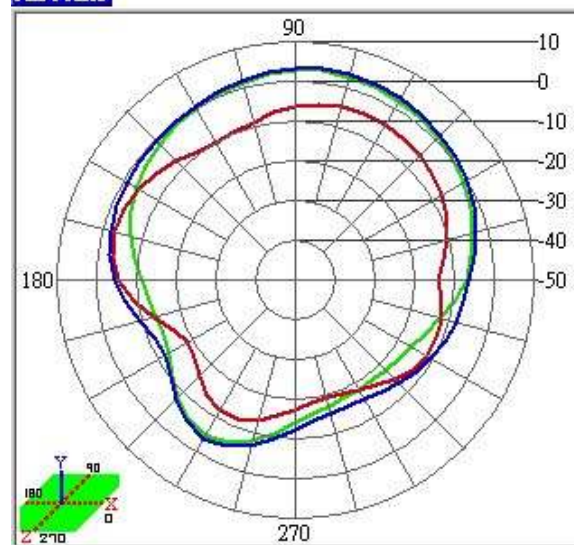
-----Horizontal
-----Vertical
-----H+V

WLAN_R 2442MHz

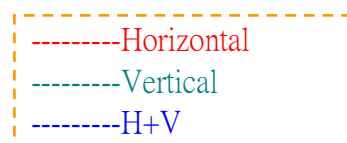
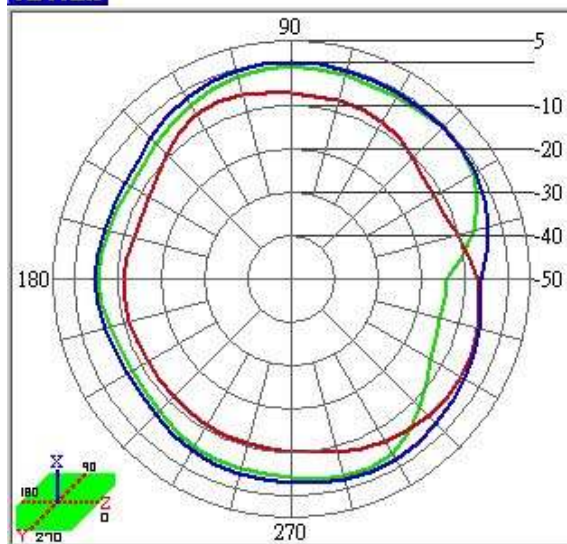
XY-Plane



XZ-Plane



YZ-Plane



WLAN_R 2500MHz

3.2 Gain

Antenna Gain Table:

	Peak Gain		
Frequency (MHz)	XY Plane (dBi)	XZ Plane (dBi)	YZ Plane (dBi)
2400 H-Pol	2.03	2.00	-0.08
2442 H-Pol	2.57	2.45	-0.12
2500 H-Pol	3.11	2.82	-0.96

4.1 Assembly Drawing(WLAN-R Ant.)

