

AP150 Test Setup for FCC Certification

Test Setup and Test Commands

Version No. 1.0

CONTRIBUTORS

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Revision history

Date	Revision	Changes
12/16/05	1.0	Initial Revision

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Introduction

This document describes test setup, test commands and test procedures for emission related tests for Meru Access Point AP150.

Test Setup

Equipments needed:

Meru AP150 (DUT)
PoE Injector
5V DC Adapter
Windows-XP PC/Laptop with Atheros ART and TFTP server
Ethernet crossover cable
Ethernet cable

Step 1a: Setting up the AP150 – PoE powered

1. Connect Ethernet port of PC/Laptop to PoE injector (Data) using the Ethernet Crossover cable.
2. Connect AP150 Ethernet port to PoE injectors (Power + Data) port with Ethernet cable

Now the Power LED of AP150 will be RED indicating that units is powered up.

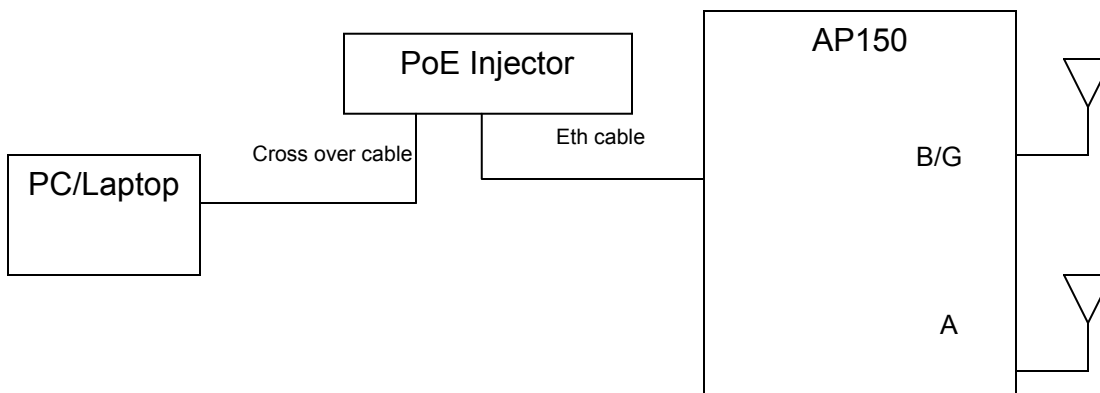


Figure 1: Test Setup for AP150 – PoE Powered

Step 1b: Setting up the AP150 – +5V DC powered

1. Connect Ethernet port of PC/Laptop to AP150 Ethernet port using the Ethernet Crossover cable.
2. Connect AP150 +5V DC input to the power Adapter

Now the Power LED of AP150 will be RED indicating that units is powered up.

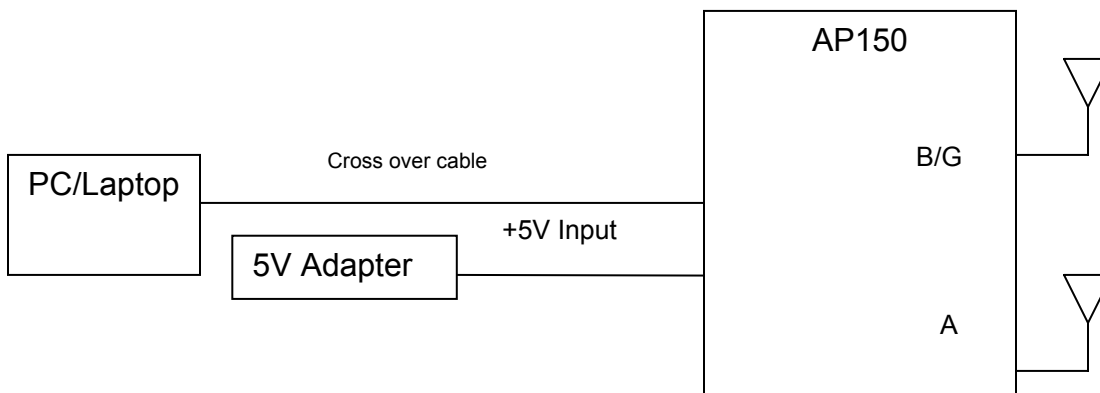


Figure 2: Test Setup for AP150 - +5V DC Powered

Step 2: Setting up the Windows-XP PC/Laptop

1. Set the IP address of the Ethernet connection to 192.168.1.202, address mask 255.255.255.0
2. Start the TFTP Server. (The art program file "freedomart_j.xyz" is available in TFTP-root).
3. Open 2 command windows. Each window will be used to control one radio.
4. In each window, change the directory to C:\art\art
5. In Command window1, type the following commands

```
C:\art\art> art48 \remote=192.168.1.91 \instance=1
```

This window is used to control the first 802.11a radio.

6. In Command window2, type the following commands

```
C:\art\art> art48 \remote=192.168.1.91 \instance=2
```

This window is used to control first 802.11b/g radio.

NOTE: The IP address of the units are labeled on the AP150 unit.

Step 3: Use ART Software to control the radios

Refer to the “AR5004 Atheros Radio Test Reference Guide” for Radio commands. Each radio is controlled independently using ART software.

Recommended Power Settings for the Radios

802.11a channels

Channel	Power in dBm
5180	10
5240	10
5260	18
5320	15
5745	20
5765	18
5825	15

802.11g channels

Channel	Power in dBm
2412	15
2417	18
2457	18
2462	18
2472	16

802.11b channels

Channel	Power in dBm
2412	18
2417	20
2462	20