User Configuration Guide

The ECB2500 is shipped with factory default configuration that works without any additional parameter changes. However, if a network security password is required or if a specific channel frequency is required, then the configuration will need to be modified.

Software Installation

The ECB2500 comes with Windows-based configuration software for user to change the operational parameters in User Configuration Mode. The PC Application software has been tested on Windows XP, Windows Vista and Windows 7. The following section provides a step-by-step installation guide of a Windows XP PC:

> ***Note**: The user will lose LAN / WAN connections on the wired / wireless networks while configuring the ECB2500. Network connections should resume after exiting the User Configuration Mode.*

1. Locate the installation CD.

2. Inside the installation CD, locate setup.exe file and double click it.

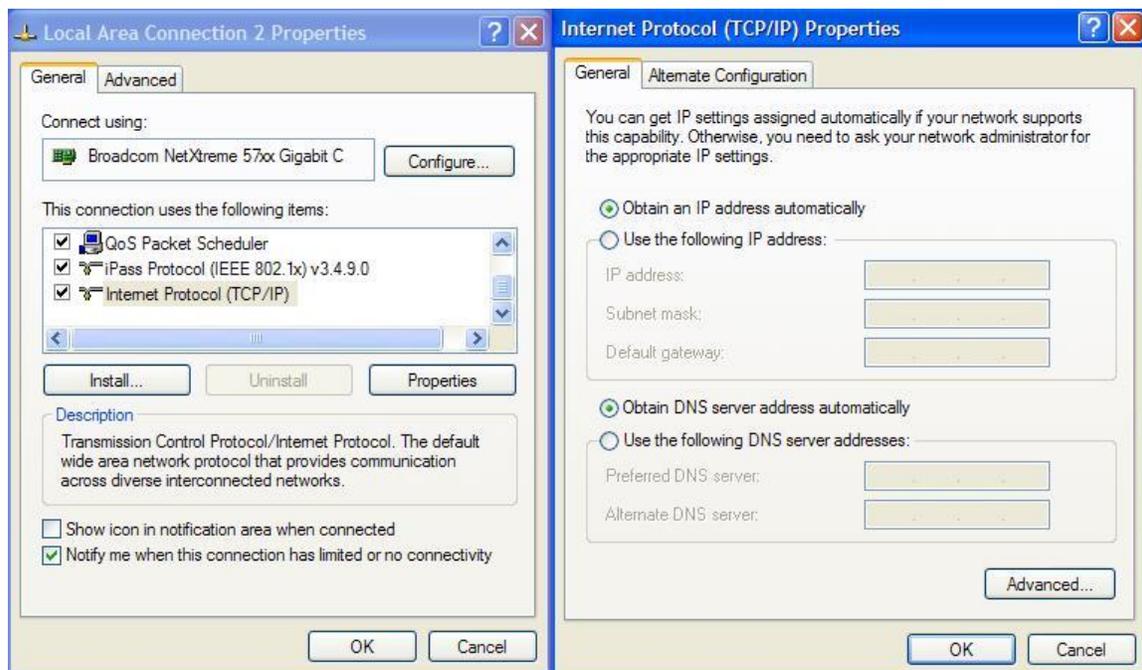3. Follow instruction before the installation is completed

Figure 1 – PC Network Connections Setup

4. On your computer (e.g. Windows XP system), open "Network Connections" under the Control Panel. Open the "Local Area Connection" Properties and then "Internet Protocol (TCP/IP)" Properties window. Make sure the "Obtain an IP address automatically" option is selected.

5. Click "OK" to accept.

User Configuration Mode Setting

Before starting the User Application software, the ECB2500 needs to be in User Configuration Mode by toggling the configuration switch to "CONFIG". Follow the instructions below to enter User Configuration Mode and start the PC Application software:

1. Make sure the ECB2500 is powered off.

2. Toggle the Configuration Switch to "CONFIG" setting

3. Apply power to your ECB2500.

4. Connect an Ethernet cable between the Ethernet ports of your computer and the ECB2500.

5. Wait 15 seconds after the Ethernet cable is connected.

6. From you computer desktop, click ECB Utility icon by going to Start -> Programs -> Actiontec -> MoCA ECB
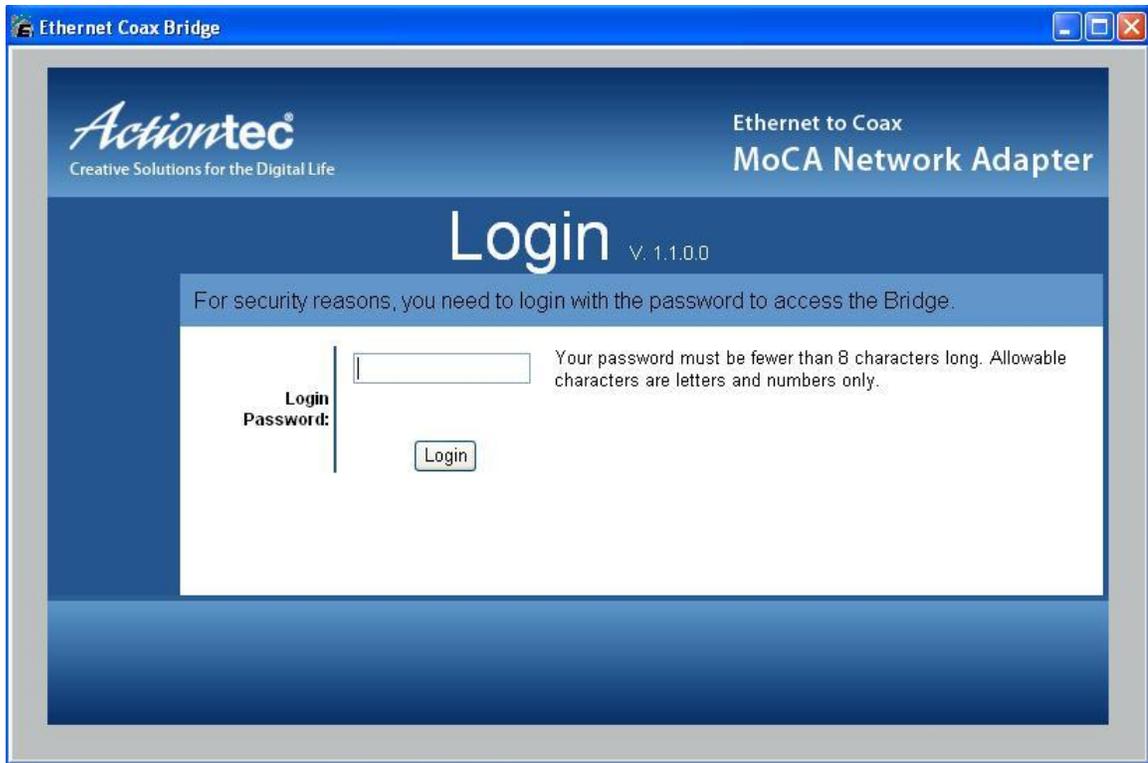
Figure 2 – Configuration Mode

7. The User Login Window will appear on the screen (as shown above) and prompt the user to enter a login password.

8. Type in the default password "admin".

9. Click on "Login" to accept.

Once you have logged into the ECB2500, you will be able to change the operational parameters and perform firmware upgrade (See next section for detailed information). Upon completion, the ECB2500 will need to be changed back to MoCA Mode.

To change back to MoCA Mode, manually toggle the ECB2500 Configuration Switch to "Run". The ECB2500 will reboot itself automatically with the new parameters. The reboot process will take approximately 35 seconds to complete.

Operational Parameters

The User Configuration Interface consists of five main menus – Setup, Password, Advanced, MoCA and Upgrade. The operating parameters in each of the five menus are described below:

Note: The "Apply" button must be clicked for changes to any of the configuration options to take effect.

Setup Menu

Figure 3 – PC App Setup Page

Channel:

The Channel parameter provides the user with the ability to control the frequency at which the ECB2500 operates. The user may set the device to operate in "SCAN" mode (default setting) or any one of the 8 fixed D-Band frequencies via this pull down menu.

Privacy / Password:
Privacy Mode controls whether or not the ECB2500 will encrypt packets on the coaxial interface. The user can either enable or disable (default setting) Privacy Mode.

The Password parameter under Privacy Mode contains an encryption key that is used by the ECB2500 to encrypt data on the coax interface. If Privacy Mode is enabled, then all the nodes on the same cable wiring will need to have the same Privacy Password in order to form a network. The default Privacy Password is "9999999988888888" (Nine 9's, eight 8's)".

Password Menu

Figure 4 – PC App Password Setup

Administrative / Password:

The Password Menu contains the login password to the ECB2500 (not to be confused with the Privacy Password for the coaxial network described in the Setup Menu). The login password prevents unauthorized users from accessing the ECB2500. The default password to the login menu is "admin" and it can be changed under Administrative and Password entries. The new password must be at least four but no more than eight characters and cannot contain spaces.

Advanced Menu

Figure 5 – PC App Advanced Menu

The Advanced Menu displays information about the ECB2500 hardware and network status. All information is read-only and cannot be modified except for the "Settings" section. These status fields are described below:

Package Version:

Display the software package version number.

Firmware Version:

Display the current firmware version running on the ECB2500.

MoCA Version:

The level of MoCA compliance the installed software will meet.

MAC Address:

This section displays the device MAC address that is unique to each of the ECB2500.

Coax TX:

This field displays the number of packets that have been transmitted on the coax interface.

Coax RX:

This field displays the number of packets that have been received on the coaxial interface.

Packet Errors:

This field displays the numbers of receive packets on the coaxial interface with errors.

RX Power:

This field displays the coaxial interface receive power level.

Devices Count:

The number of devices on the MoCA network is displayed here.

MoCA Devices:

Click on the "Get MoCA Devices" button to display the MAC addresses of the devices on the MoCA network.

Phy Rates:

Click on the "Get Phy Rates" button to display the data rate of the devices on the MoCA network. The PHY rates will be displayed in a matrix format indicating the link status of each node to every other node in the network.

MoCA Menu

Figure 6 - MoCA Menu

The MoCA menu provides the ability to make configuration changes necessary for MoCA testing. See the figure below for the configuration options provided.

Last Operating Frequency:

Under the MoCA tab, the drop down list box can be used to select the last operating frequency (LOF). Available frequency includes 1150MHz, 1200MHz, 1250MHz, 1300MHz, 1350MHz, 1400MHz, 1450MHz, and 1500MHz. A value of 0 or -1 will signify NULL.
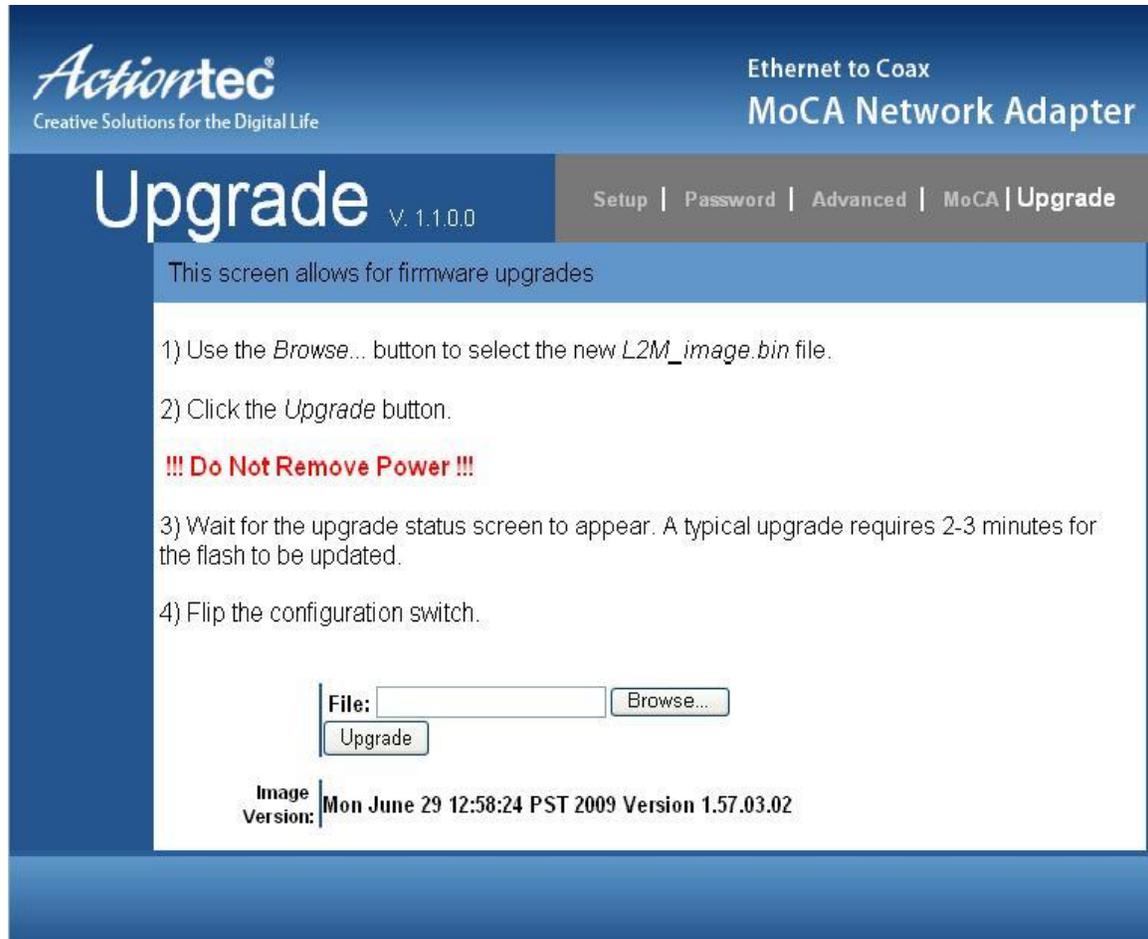
Upgrade Menu

Figure 7 – PC App Upgrade Menu

The device firmware can be upgraded using firmware upgrade option. Follow the instructions below to complete the firmware upgrade.

1. Click on "Browse" button and select the firmware to be programmed. A copy of the original firmware, "L2M_image.bin" can be found on the installation CD in the "Flash Image" folder.

2. After selecting the firmware, click on "Upgrade" button to begin the firmware update. A typical upgrade required 2 to 3 minutes to complete.

3. Wait for the "Success!" message on the screen indicating that firmware update has been completed.

The firmware that is loaded on the ECB2500 will not be erased if user chooses the option to restore factory defaults via the Reset button.