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Hardware Specifications

CPU	Broadcom BCM4718
CPU Speed	480 MHz
Flash ROM	16 MB Macronix MX25L12845E
RAM	64 MB
Radios	2.4 GHz, 5 GHz
WLAN Support	a/b/g/n

WLAN Max Speed	300mbps (2.4 GHz) & 450mbps (5 GHz)
Antenna Location	Internal (x6)
Bands	3 x 3
Switch	4x GigE + 1 WAN Broadcom 53115 IEEE 802.3/3u/3ab
USB	1x USB 2.0

Radio wl0 is Broadcom 4718 (SoC)

Radio wl1 is Broadcom 4331 Intensi-fi Single-Chip 802.11n Transceiver

Flashing

These instructions are for E4200 version 1 ONLY! Version 2 has a marvel chipset and is NOT supported

Warnings

- The E4200 is very sensitive to the nvram size.
- For the initial flash, upgrading stock firmware to DD_WRT, use Flashing process procedure below! Please follow it. To prevent a brick use only trailed builds.
    - A trailed build has "E4200" in its name like:
      dd-wrt.v24-18777_NEWD-2_K2.6_mini-**e4200**.bin
- The only safe builds which can be used **AFTER** initial flash for this router are **nv60 builds**.
    - NV60 build has a name like: dd-wrt.v24-18777_NEWD-2_K2.6_big-**nv60**.bin
- Recovery from a firmware with the wrong nvram size requires use of a jtag cable to erase the nvram.[1]
- Support for the E4200 is still very much a work in progress at this time, outstanding issues reported have included WAN stability, and both 2.4GHz and 5GHz Radio stability. The E4200 works very well with **Kong 22000++** (see below).
- The E4200 dissipates a good deal of **heat** at the stock 100 mW transmit power. *Ensure adequate cooling* or reduce transmit power to 40-50 mW.

Flashing Process

Perform these steps for initial DD-WRT flash from the stock Linksys GUI:

1. Read all required reading sections of the peacock announcement.
2. Disconnect any Ethernet cables from router and PC, and disable PC wireless.
3. Do a Hard reset or 30/30/30 of the router.
4. Connect Ethernet cable from a LAN port (not the Internet port) of the router to PC doing the flash.
5. Wait for router to boot up, and then for PC to get DHCP address from the router.
6. Open router GUI (192.168.1.1) in Web browser on PC.
7. Flash an E4200-specific mini build; e.g., **21676 trailed initial flash build for E4200**

♦ **Do NOT use a build with "nv60k" in the name for the initial flash**; use only the trialed build linked just above.

♦ **21676 is a stable, reliable, recommended build for the E4200**, but *only use the mini version*, since *larger versions have the <u>dangerous Heartbleed vulnerability</u>*. If you need more functionality than mini, upgrade to **<u>Kong 22000++</u>**:

8. Wait for flashing process to complete, *then wait 3 more minutes.*
9. Perform a <u>Hard reset or 30/30/30</u> after the device has successfully updated.
10. Wait for router to boot up, then log into DD-WRT Web interface (192.168.1.1).

♦ You may have to clear your browser cache before the Web login will display.

Upgrading Process

- If you need to upgrade to a build other then mini or a newer release take note of the following.
- If a nv60 build is flashed to the router those are the only builds which can be flashed from that point on.
  WARNING AFTER installing DD_WRT, ONLY flash -nv60k builds,
  Flashing anything else to the router will brick it as noted above

1. Select the build of your choosing (Mega, Big, std_usb_nas, OpenVPN, VoIP).
   The E4200 works very well with **<u>Kong 22000++</u>**.
2. Follow the same flashing procedure as you used for the initial flash

Reverting back to stock firmware

- You can always revert back to stock firmware.
- Download the latest E4200 firmware from linksys site.

1. Disconnect all cables and wireless clients.
2. Perform a 30/30/30 reset on the device.
3. Login and select the stock firmware file and flash, make sure to select "reset to defaults" on the drop down menu when flashing.
4. Wait approximately 5 minutes for the flashing process to complete.
5. Perform a 30/30/30 after the device has successfully updated.

Wireless-N Configuration

- As is explained in **<u>Wireless-N Configuration</u>** make sure that you use **AES** with **WPA2** security for your wireless N network. Do not use TKIP or the wireless speed will revert to the g standard and that would be a pity. (AES+TKIP is also allowed but not recommended.)

- It is recommended to set:
  - ♦ 2.4 GHz radio to "NG-Mixed".
  - ♦ 5 GHz radio to "NA-Mixed".

- Both 2.4 and 5 GHz Radios run at a stock transmitting power of 100mW. Decreasing the transmitting power to a value between 40 & 50mW may help stability, especially if the router has poor cooling.

References

1. e4200 build thread at dd-wrt forum
2. FCC disclosures