

## jjPlus MPIS OpenWRT-SDK V0.2.0 README File

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This README offers additional instructions to build the embedded linux image for the AR934x embedded platform series, an Atheros DB120 reference design variant.

### \_\_\_ Top Level Build Files to Prepare the Build Tree \_\_\_

l-openWrt\_r37890-extra-tarballs.tar - extra source tarballs directory  
l-jjPlus-MIPS-openWrt-V0.2.0.tar.bz2 - OpenWRT build system  
l-firmware - jjPlus platforms  
images

### \_\_\_ IP Address Information \_\_\_

- a) LAN: 192.168.1.1
- b) WAN: dhcp client

### \_\_\_ Remote Management Interface \_\_\_

- a) SSH
- b) Web UI

### \_\_\_ User Account Info \_\_\_

username: root  
password: admin

### \_\_\_ Build image \_\_\_

```
$ untar all tarballs (jjPlus-MIPS-openWrt-V0.2.0.tar.bz2 & openWrt_r37890-extra-tarballs.tar)
$ cd "openWrt SDK folder"
$ ln -s ../dl dl
$ cp jwap604_defconfig .config
```

Deafault setting is:

Target Profile -> ( ) jjPlus JA76PF

- ( ) jjPlus JA76PF2
- ( ) jjPlus JWAP003
- ( ) jjPlus JWAP223
- ( ) jjPlus JWAP603/606
- (X) jjPlus JWAP604
- ( ) jjPlus JWAP702

Note:

1. JWAP603/606: This is for jjPlus AR9342/AR9344 DBDC platform w/ giga PHY.  
Ex: JWAP603, JWAP606
2. JWAP604 : This is for jjPlus AR9344 DBDC platform w/ giga Switch.  
Ex: JWAP604

3. JWAP702 : This is for jjPlus AR9342 platform w/ giga PHY.  
Ex: JWAP702

Select the platform then save the configuration file.

\$ make

\_\_\_ Install image \_\_\_

Assume JWAP604 is selected, the images are :

"openWrt SDK folder"/bin/ar71xx/openwrt-jwap604-kernel.bin  
"openWrt SDK folder"/bin/ar71xx/openwrt-jwap604-rootfs-squashfs.bin

The image name will be changed with the selected board.

The lzma-compressed kernel and JFFS2 images are programmed to the flash using u-boot flash image system commands. u-boot uses tftp transfer protocol for image retrieval.

The default network settings for the u-boot configuration are:

ipaddr=192.168.1.2  
ethact=eth0  
serverip=192.168.1.10

If a different local or default server IP is required for the LAN, it will be necessary to change the values using setenv and rebooting for the changes to take effect.

The following steps will reprogram the kernel and file system images on all of jjPlus AR934x platforms.

For example: Update JWAP604 platform.

```
ar7240> tftpboot 0x80010000 openwrt-jwap604-kernel.bin
Trying eth0
dup 1 speed 1000
Using eth0 device
TFTP from server 192.168.1.10; our IP address is 192.168.1.2
Filename 'openwrt-jwap604-kernel.bin'.
Load address: 0x80010000
Loading: #####
#####
#####
done
Bytes transferred = 917504 (e0000 hex)
ar7240> erase 0x9f050000 +0x160000; cp.b $fileaddr 0x9f050000 $filesize
Erase Flash from 0x9f050000 to 0x9f1affff in Bank # 1
First 0x5 last 0x1a sector size 0x10000
Erased 22 sectors
```

Copy to Flash... write addr: 9f050000  
done

ar7240> tftpboot 0x80010000 openwrt-jwap604-rootfs-squashfs.bin

Trying eth0

Using eth0 device

TFTP from server 192.168.1.10; our IP address is 192.168.1.2

Filename 'openwrt-jwap604-rootfs-squashfs.bin'.

Load address: 0x80010000

Loading: #####

#####

#####

#####

#####

#####

done

Bytes transferred = 1966080 (1e0000 hex)

ar7240> erase 0x9f1b0000 +0xdc0000; cp.b \$fileaddr 0x9f1b0000 \$filesize

Erase Flash from 0x9f1b0000 to 0x9ff6ffff in Bank # 1

First 0x1b last 0xf6 sector size 0x10000 246

Erased 220 sectors

Copy to Flash... write addr: 9f1b0000

done

ar7240> re