

Q: How to burn images to Nand in SBC6410 (Android2.3.4)?

A:

1 Make starting SD card

Note

1. Make the boot from SD-card; please choose standard SD-card with the capacity is 2G bytes. We advise user to choose 1/2G Kingston or Sandisk good quality card.



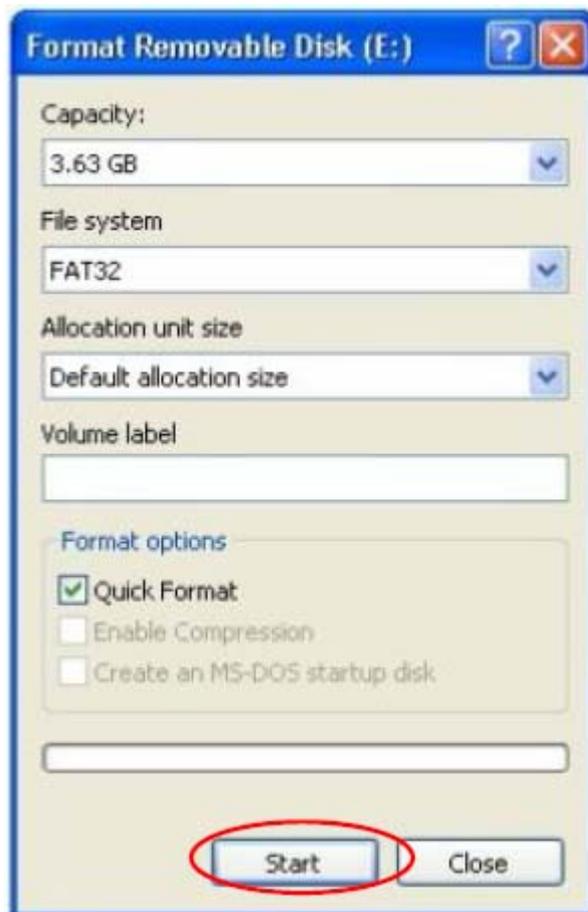
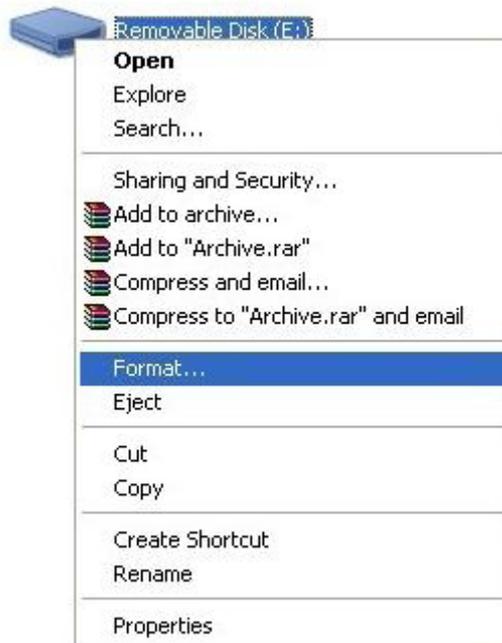
2. Please plug card reader in the USB interface when you write SD boot.bin to SD card. You had better not use the built-in card reader of notebook computer. Sometimes, the built-in SD card reader of notebook computer can not write normally, or it can't start normally even if it is written success.

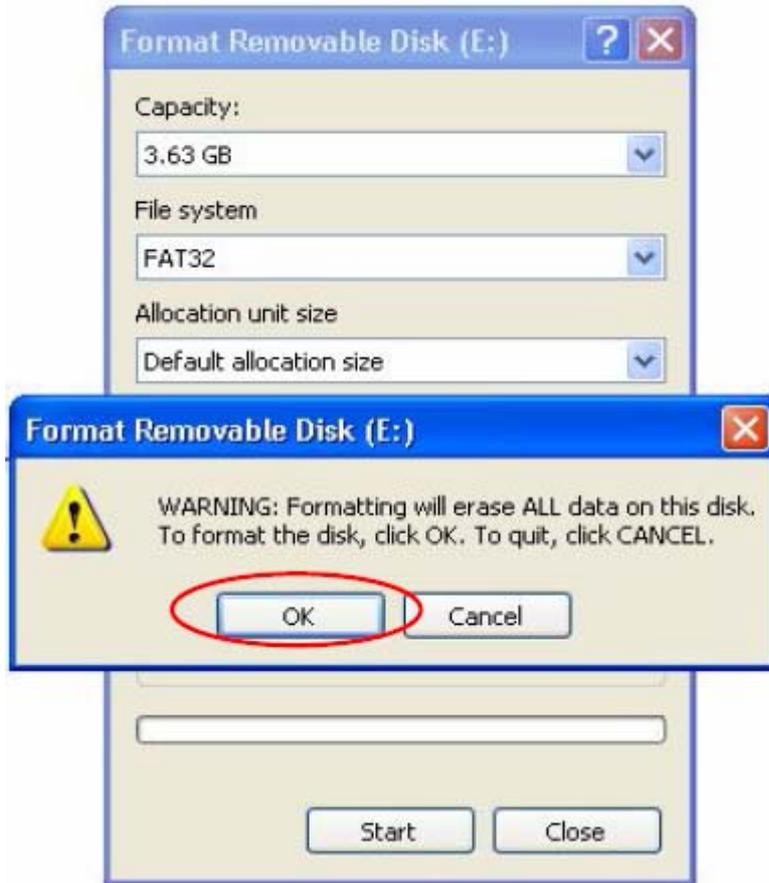


The software which was named “**moviNAND_Fusing_Tool.exe**” in CD: [SBC6410\tools\](#) can make boot from SD card quickly and it is used for burning image to Nand Flash of SBC6410 development board.

Please make it refer to the follow steps:

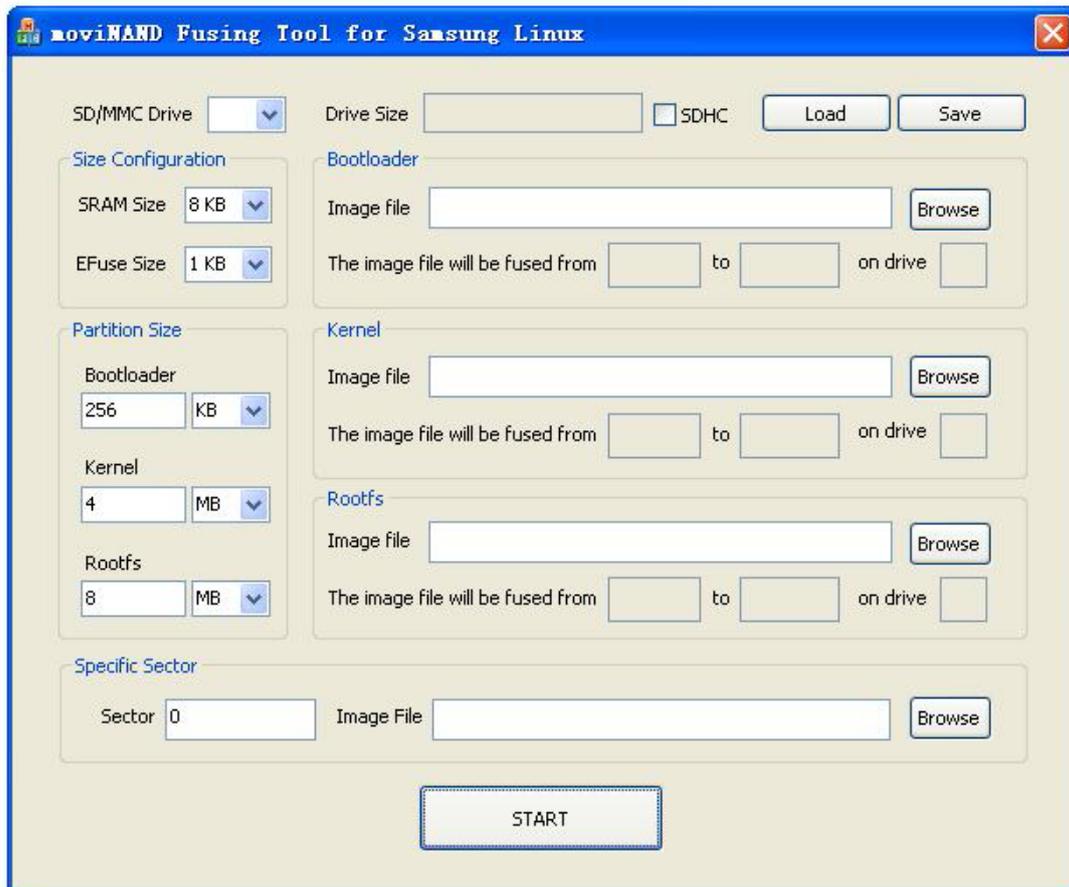
Step 1: Plug SD card in USB card reader, and format SD card as FAT32 in windows XP.







Step 2: Open moviNAND_Fusing_Tool.exe in windows XP.

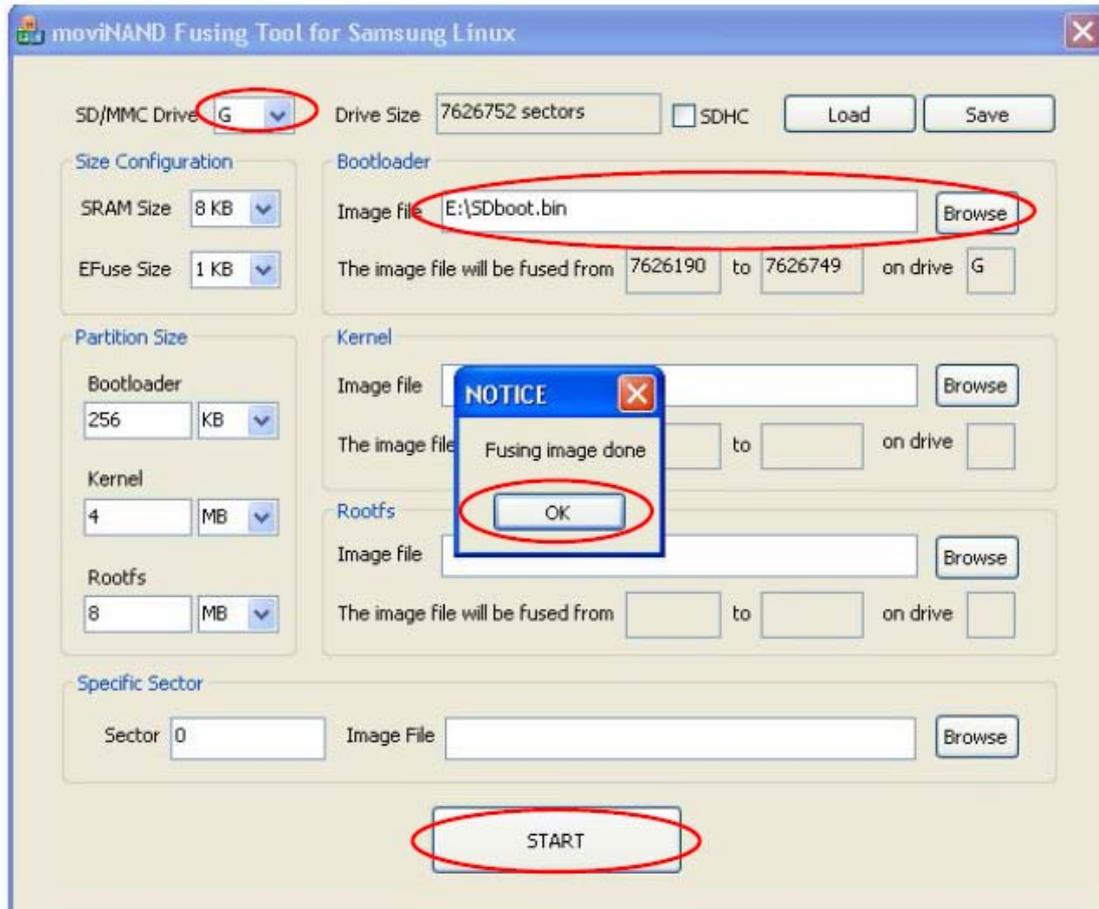


Step 3: Write Sdboot.bin to the SD card.

At the place of “**SD/MMC Driver**”, please select the SD card’s mapped disc path under windows XP.

Click the “**Browse**” button to add **Sdboot.bin** in the Image file.

Click “**START**”.



If it is ok, will pop up "Fusing image done", and click "OK" to complete the operation.

Note: After successful programming, you will not see the data what you have written and the capacity of SD card will not change.

2 Installing the USB download driver

Explain: The USB download drivers locate in CD: `\SBC6410\Tools\`

Connect the development board and PC through USB and serial port, the installation process is shown below:



Found New Hardware Wizard



Welcome to the Found New Hardware Wizard

This wizard helps you install software for:

SEC S3C6400X Test B/D

 **If your hardware came with an installation CD or floppy disk, insert it now.**

What do you want the wizard to do?

- Install the software automatically (Recommended)
- Install from a list or specific location (Advanced)

Click Next to continue.

< Back **Next >** Cancel

Found New Hardware Wizard

Please choose your search and installation options.



- Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
 - Search removable media (floppy, CD-ROM...)
 - Include this location in the search:
- Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.

< Back **Next >** Cancel

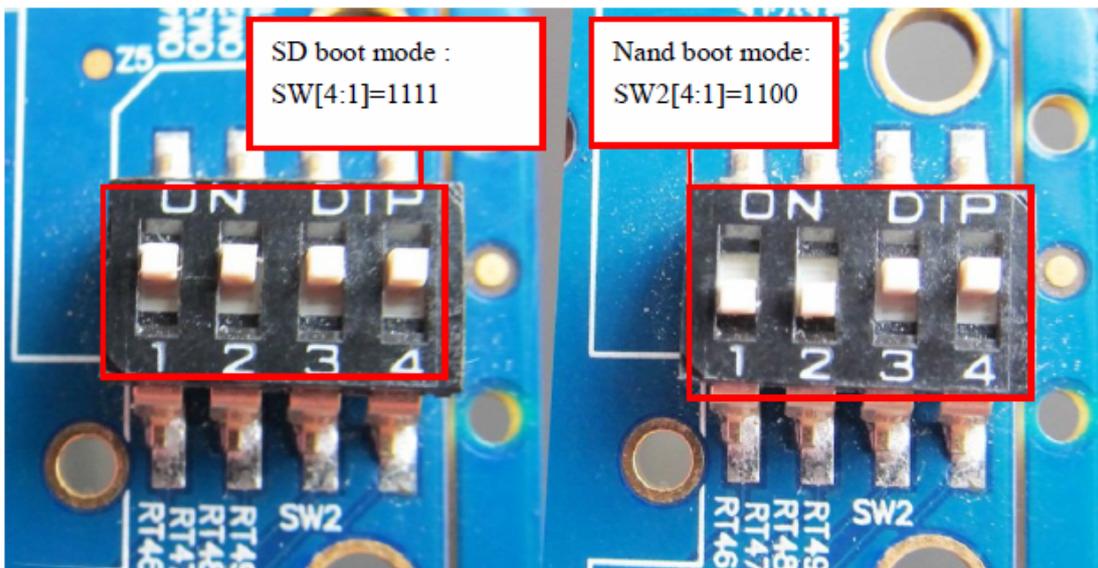


3 Burn uboot

Step 1: Set boot from SD.

Switch SW2 is for selecting the boot modes. SD-card boot corresponds to (SW2 [4:1]) 1111. Switch SW2 [4:1] is 1100; this sets the Boot mode to Nand boot mode.

The boot modes setting in the following picture is from SD boot mode and Nand boot mode.



Step 2: Burn uboot.bin.

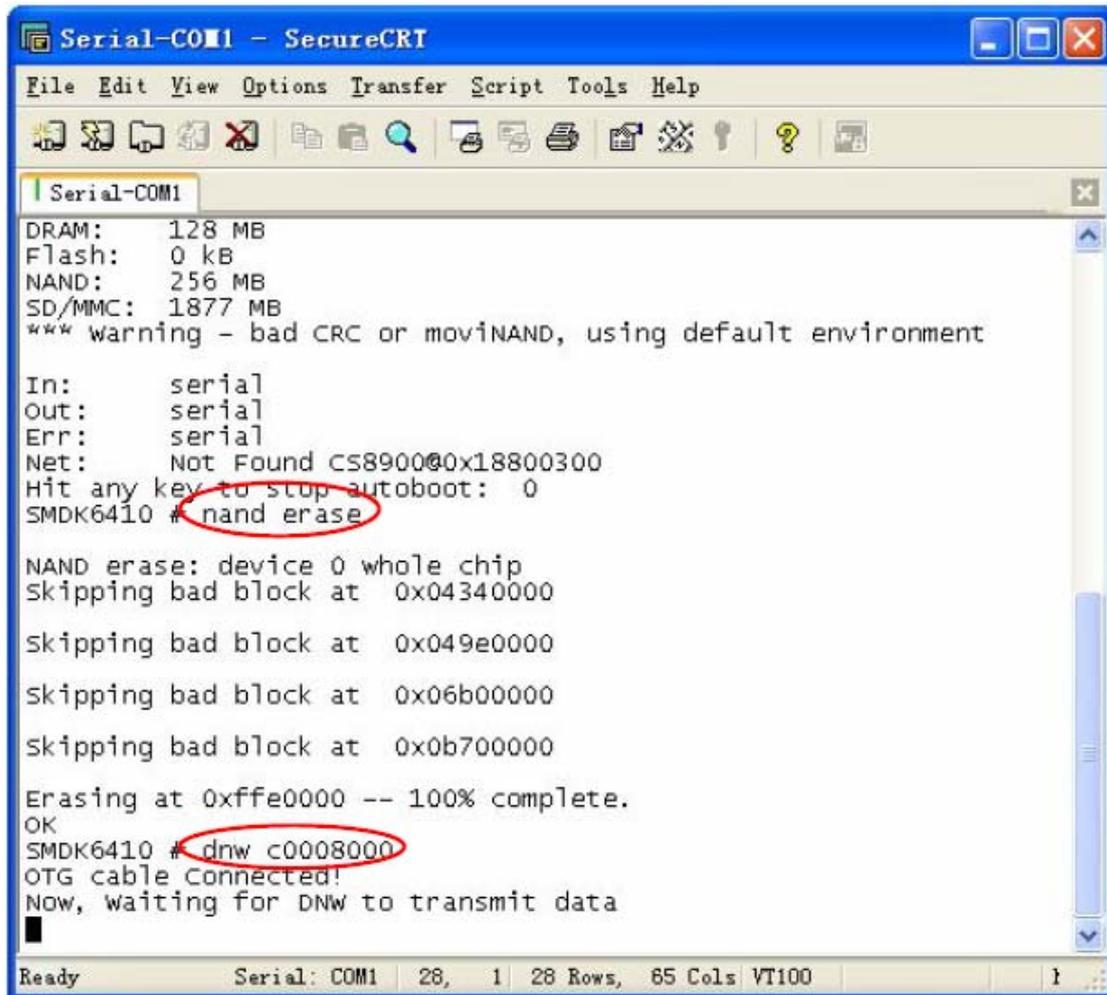
Download and burn u-boot.bin by DNW. Turn the **SW2 [4:1] to 1111** and turn on the development board. Pressing space key to enter command line, it will appear following message then do as following command.

The command and the example pictures as follows:

nand erase

dnw c0008000

nand write.jffs2 c0008000 0 40000



```

Serial-COM1 - SecureCRT
File Edit View Options Transfer Script Tools Help
Serial-COM1
DRAM: 128 MB
Flash: 0 kB
NAND: 256 MB
SD/MMC: 1877 MB
*** warning - bad CRC or moviNAND, using default environment
In: serial
Out: serial
Err: serial
Net: Not Found CS8900@0x18800300
Hit any key to stop autoboot: 0
SMDK6410 # nand erase

NAND erase: device 0 whole chip
skipping bad block at 0x04340000

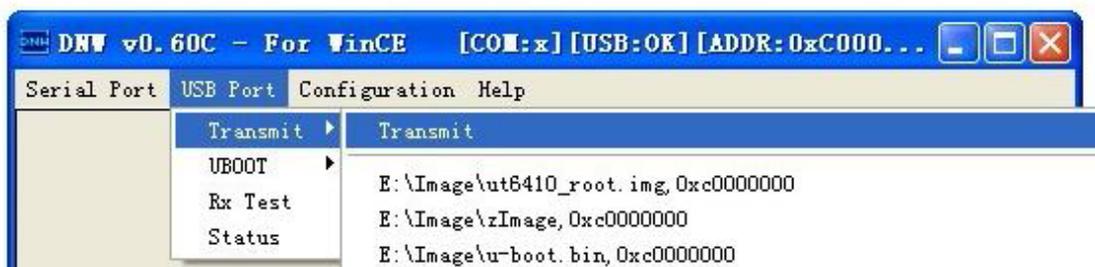
skipping bad block at 0x049e0000

skipping bad block at 0x06b00000

skipping bad block at 0x0b700000

Erasing at 0xffe0000 -- 100% complete.
OK
SMDK6410 # dnw c0008000
OTG cable Connected!
Now, waiting for DNW to transmit data

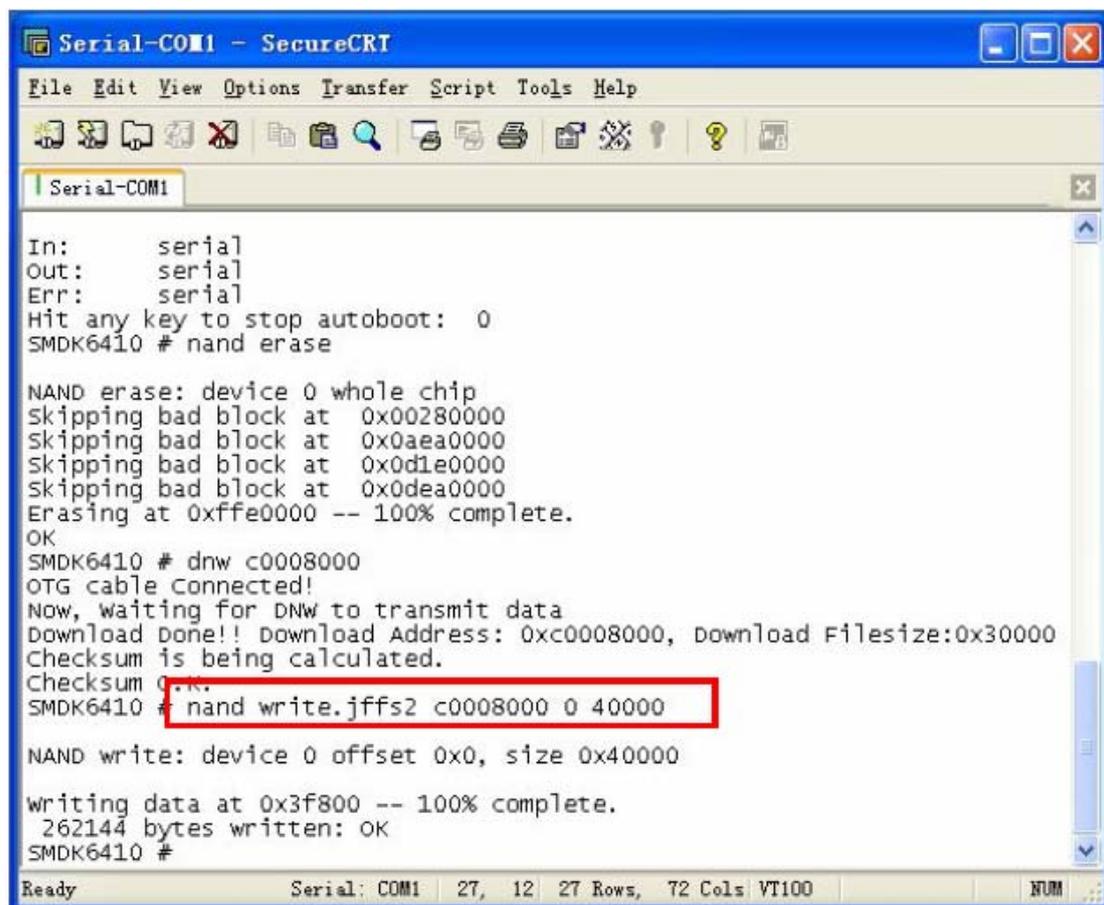
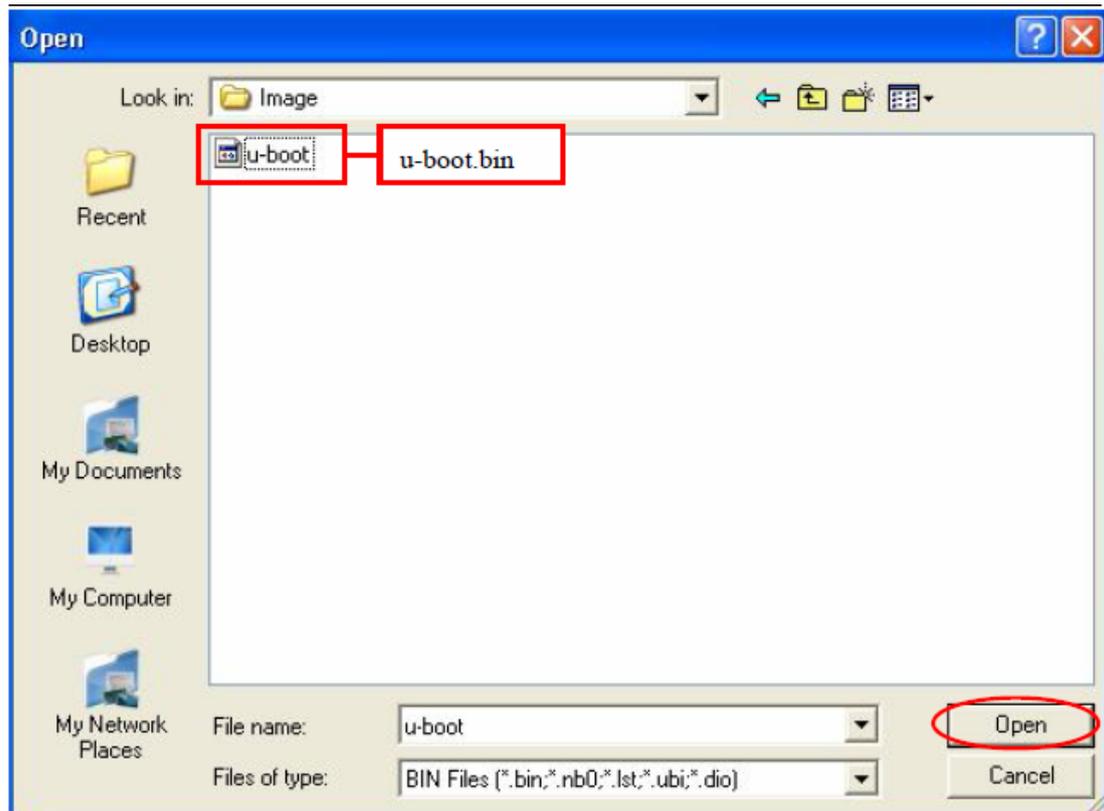
```



```

DNW v0.60C - For WinCE [COM:x] [USB:OK] [ADDR:0xC000...
Serial Port USB Port Configuration Help
Transmit Transmit
UBOOT E:\Image\ut6410_root.img, 0xc0000000
Rx Test E:\Image\zImage, 0xc0000000
Status E:\Image\u-boot.bin, 0xc0000000

```



After above operation, we can boot from Nand flash. The method:

Power off the development board and set boot from Nand flash (**SW2 [4:1] = 1100**).

Then restart the development board and press the space key to enter the uboot command line.

Note:

No matter which image you want to burn, you also need to burn the other images (uboot, kernel, file system) at the same time.

There is another method to burn the image which you want. Before you download the image you must format the corresponding area.

For example, we burn the u-boot-nand.bin replace the uboot image in the board:

```
#nand erase 0 40000
```

```
#dnw c0008000
```

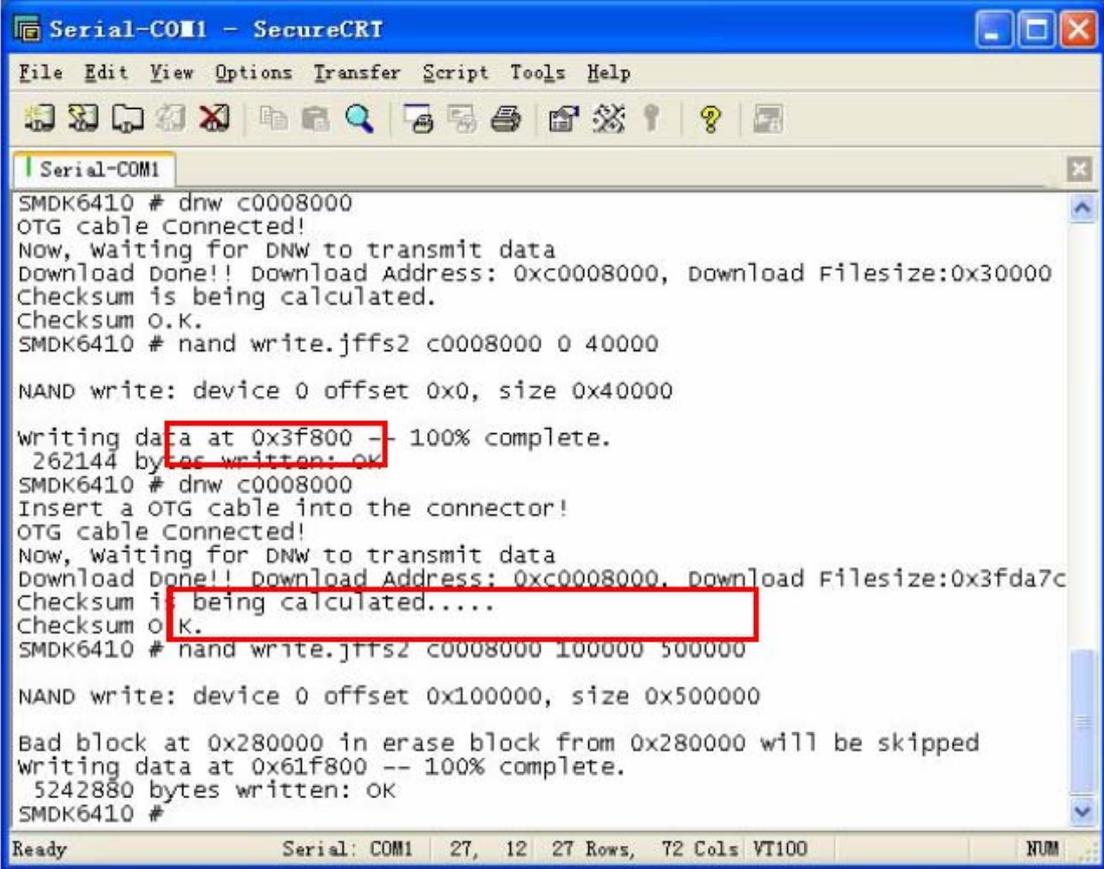
```
#nand write.jffs2 c0008000 0 40000
```

4 burn zImage

Download and burn zImage by DNW, the command as follows:

```
# dnw c0008000
```

```
# nand write.jffs2 c0008000 100000 500000
```



```
Serial-COM1 - SecureCRT
File Edit View Options Transfer Script Tools Help
Serial-COM1
SMDK6410 # dnw c0008000
OTG cable Connected!
Now, waiting for DNW to transmit data
Download Done!! Download Address: 0xc0008000, Download Filesize:0x30000
Checksum is being calculated.
Checksum O.K.
SMDK6410 # nand write.jffs2 c0008000 0 40000

NAND write: device 0 offset 0x0, size 0x40000

writing data at 0x3f800 -- 100% complete.
262144 bytes written: OK
SMDK6410 # dnw c0008000
Insert a OTG cable into the connector!
OTG cable Connected!
Now, waiting for DNW to transmit data
Download Done!! Download Address: 0xc0008000, Download Filesize:0x3fda7c
Checksum is being calculated....
Checksum O.K.
SMDK6410 # nand write.jffs2 c0008000 100000 500000

NAND write: device 0 offset 0x100000, size 0x500000

Bad block at 0x280000 in erase block from 0x280000 will be skipped
writing data at 0x61f800 -- 100% complete.
5242880 bytes written: OK
SMDK6410 #
Ready Serial: COM1 27, 12 27 Rows, 72 Cols VT100 NUM
```

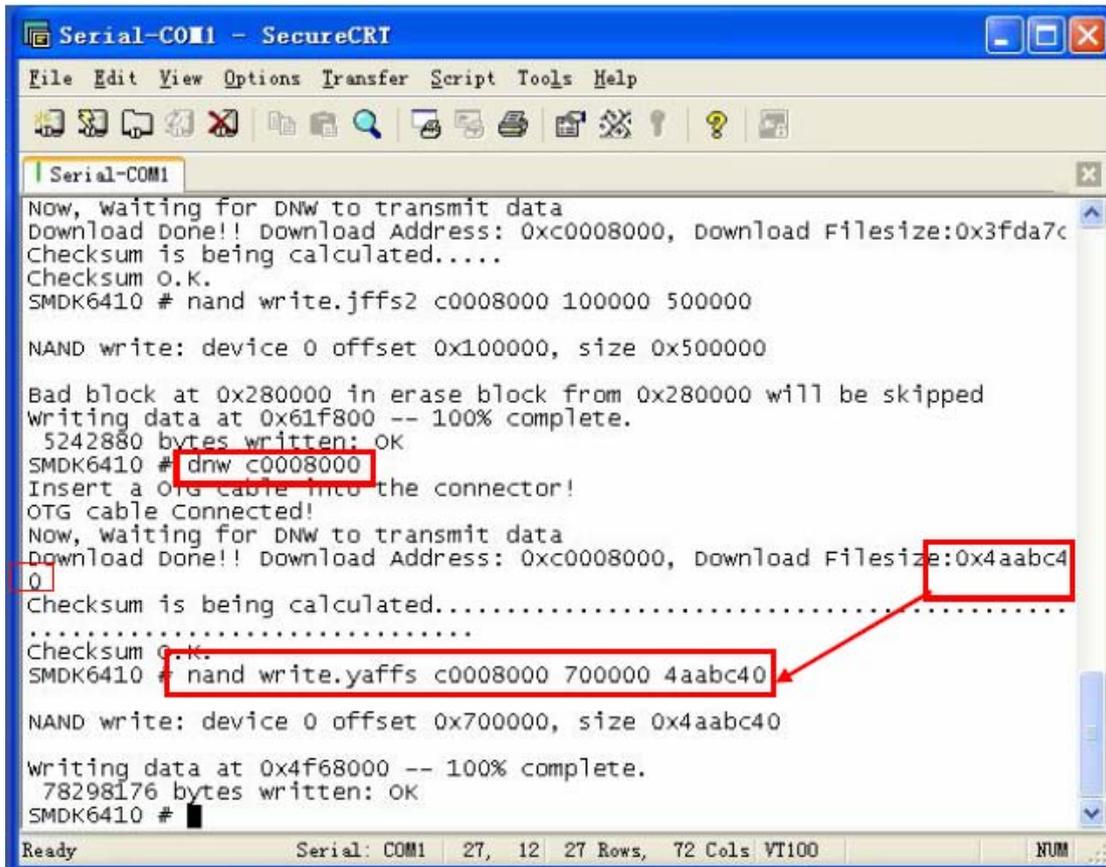
5 burn android

Download and burn ut6410_root.img, the command as follows:

```
# dnw c0008000
```

```
# nand write.yaffs c0008000 700000 xxxxxx
```

Note: The part of xxxxxx should input the actual size of the file download by DNW.



```
Serial-COM1 - SecureCRT
File Edit View Options Transfer Script Tools Help
Serial-COM1
Now, waiting for DNW to transmit data
Download Done!! Download Address: 0xc0008000, Download Filesize:0x3fda7c
Checksum is being calculated.....
Checksum O.K.
SMDK6410 # nand write.jffs2 c0008000 100000 500000
NAND write: device 0 offset 0x100000, size 0x500000
Bad block at 0x280000 in erase block from 0x280000 will be skipped
writing data at 0x61f800 -- 100% complete.
 5242880 bytes written: OK
SMDK6410 # dnw c0008000
Insert a OTG cable into the connector!
OTG cable Connected!
Now, waiting for DNW to transmit data
Download Done!! Download Address: 0xc0008000, Download Filesize:0x4aabc40
Checksum is being calculated.....
Checksum O.K.
SMDK6410 # nand write.yaffs c0008000 700000 4aabc40
NAND write: device 0 offset 0x700000, size 0x4aabc40
writing data at 0x4f68000 -- 100% complete.
 78298176 bytes written: OK
SMDK6410 #
```

Now, restart the development board and enter the android system.