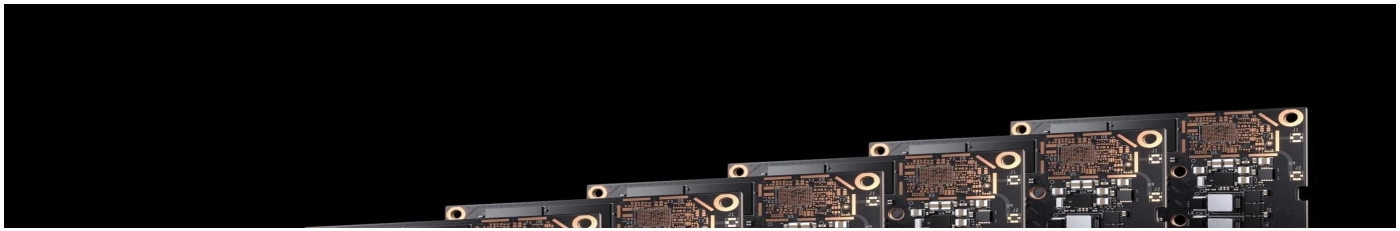


How to Clone eMMC Image of NVIDIA® Jetson™ Nano™ Module?

Jetson Nano

10 June 2021

WHAT YOU WILL LEARN?

1- How to check the Jetson device in Recovery Mode
2- How to get backup image from Jetson modules
3- How to burn image to Jetson modules

ENVIRONMENT

Hardware 1: DSBOX-N2 industrial box PC
Hardware 1: DSBOARD-NX2 industrial carrier board
OS: Jetpack 4.5 (L4T-32.5.0)

Putting Source Device into Recovery Mode

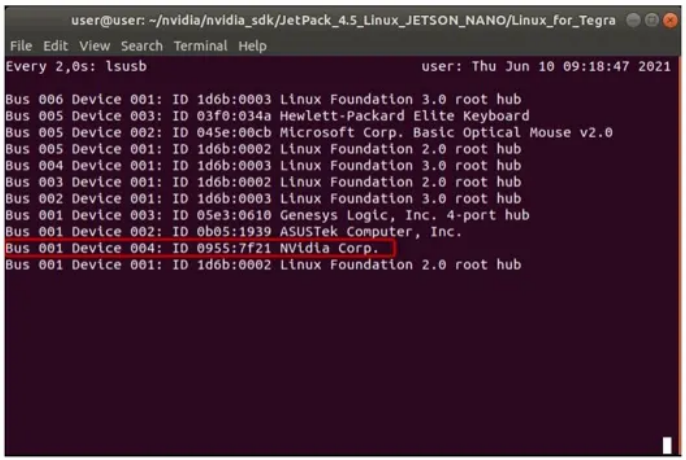
module with "flash.sh" script file.

First, we will put the source device into Recovery Mode and clone the file system of target module. Next, we will put the target device into Recovery Mode and burn the file system with the backup image.

After putting your source device in recovery mode, open a terminal and type this command:

```
watch lsusb
```

As you can see below, the source module has inserted in Recovery Mode successfully. Now, you can clone the file system. Exit this script (Ctrl+C) and continue to the next step.



You should change the current directory to the Jetson SDK folder and backup the module. JetPack version of our source module is 4.5. So that, our working directory is:

```
~/nvidia/nvidia_sdk/JetPack_4.5_Linux_JETSON_NANO/Linux_for_Tegra
```

Jetson SDK Folder

Change the current directory (If you use another version of JetPack, your “cd” command will change.) and create the backup image with these commands below:

```
cd ~/nvidia/nvidia_sdk/JetPack_4.5_Linux_JETSON_NANO/Linux_for_Tegra
sudo ./flash.sh -r -k APP -G backup.img jetson-nano-emmc mmcblk0p1
```

After typing the clone command into the terminal, the processes look like this:

Beginning of the Cloning

At the end of the clone command, the "backup.img.raw" file was saved and the "backup.img" file was created.

End of the Cloning Step

Putting Target Device into Recovery Mode

After putting your target device in recovery mode, open a terminal and type this command:

```
watch lsusb
```

As you can see below, the target module has inserted in Recovery Mode successfully. Now, you can restore the file system. Exit this script (Ctrl+C) and continue to the next step.

Jetson Nano in Recovery Mode (0955:7f21)

Restoring The File System

image with these commands:

```
sudo mv bootloader/system.img* .
sudo mv backup.img.raw bootloader/system.img
sudo ./flash.sh -r jetson-nano-emmc mmcblk0p1
```

A few seconds later, the writing status looks like this:

A Moment During Restore

This process took more than 7 minutes in our system.

End of Restoring Image

At the end of the image burning process, the target device will reboot.

Thank you for reading our blog post.

Pages

- Home
- About Us
- Customize
- Blog
- Contact Us
- Shipping & Return
- Privacy Policy
- Payment Methods
- Wholesale Inquires
- Product Presentation

Products

Distance Sales Contract