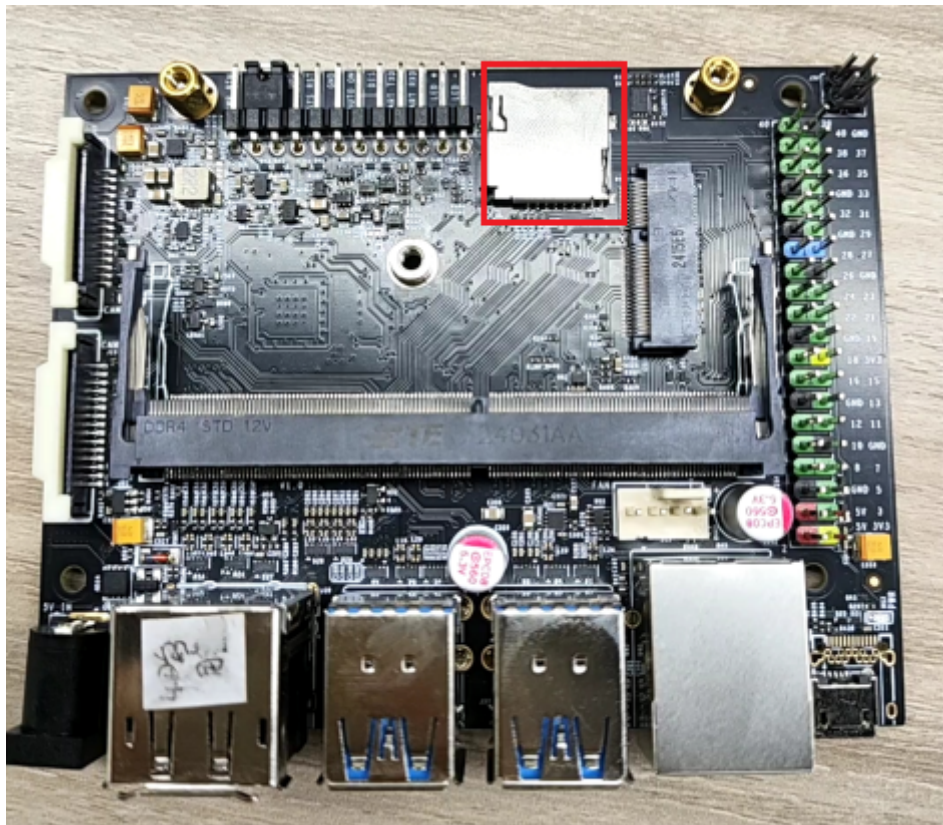


Jetson Nano SUB TF card startup and scaling

The Jetson Nano B01 SUB board boots via eMMC by default instead of booting from the SD card like previous NVIDIA official kits. Currently, Jetson Nano eMMC only has 16G. For most users who need to install CUDA, tensorflow and other resources, 16G content is still too small. Setup instructions for the extended SD card are provided here.

hardware

The baseboard needs to have an expanded SD card slot.



Software settings

- Please first ensure that Jetson Nano B01 can enter the EMMC system normally. If you haven't programmed the EMMC system yet, you can first follow the steps in our tutorial [Programming the EMMC system]**
 - **For normal operation, please check not to write wrong characters or change wrong positions. Otherwise you need to start from scratch**
- Insert the sd card into the Jetson Nano B01 board
- Start Jetson Nano B01 and open the terminal
- Download the dtb file to Jetson Nano B01 and unzip it. The dtb file can be obtained from our appendix

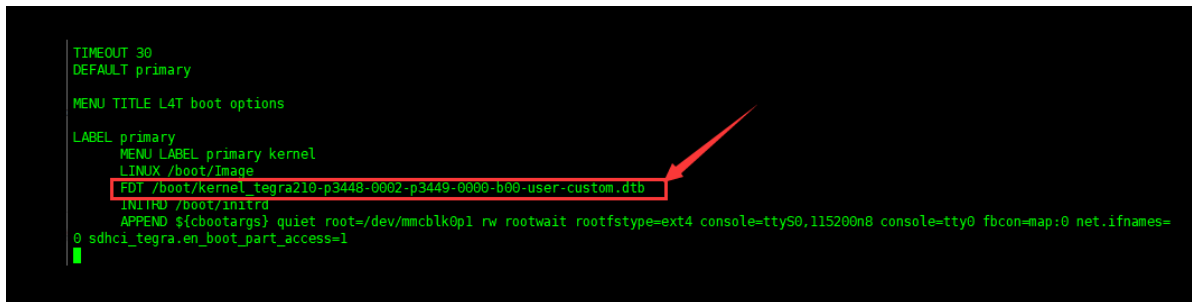
```
unzip Nano-dtb-SDMMC.zip
```

- Copy the dtb file to the boot directory

```
sudo cp kernel_tegra210-p3448-0002-p3449-0000-b00-user-custom-JP461.dtb
/boot/kernel_tegra210-p3448-0002-p3449-0000-b00-user-custom.dtb
```

- Modify the extlinux.conf configuration file (path: **boot/extlinux/**)
 - **Add the following statements to the file, be careful not to change other locations to avoid failing to start the system properly**

```
FDT /boot/kernel_tegra210-p3448-0002-p3449-0000-b00-user-custom.dtb
```



After the addition is completed, save and restart Jetson Nano B01

```
sudo reboot
```

- After restarting, run the `df -h` command to check whether there is `mmcblk1p1` device. If the `mmcblk1p1` device is recognized (no other additional storage devices are connected), it means that the SD card has been recognized normally.
 - If you just want to use the SD card as additional storage, this step is enough
- Set up SD card boot
 - The SD card has been pre-burned with the nano system (JetPack version 4.5.1 or above is recommended)
 - Modify the `extlinux.conf` file, find the statement `APPEND ${cbootargs} quiet root=/dev/mmcblk0p1 rw rootwait rootfstype=ext4 console=ttyS0,115200n8 console=tty0`, change **mmcblk0p1 to mmcblk1p1**, save, and then restart the system
That's it
 - After restarting, run `df -h` to view the device. You can see that the root directory has been changed to the `mmcblk1p1` device (SD card), and the `mmcblk0p1` device (emmc) is hung in `/media`.

