

Image Install Guide

(DEBIX Model C)

Software Installation

① Download Image

1. Download the latest system image from the [software download page](#) of DEBIX official website;

IMPORTANT

The boot type of the image downloaded depends on which boot mode image you choose to install, and whether or not the board contains eMMC, etc. For example, if you need to install an image with eMMC boot mode, and the board has an eMMC module, you can choose the image name with (eMMC Flashing).

2. If the downloaded image file is a zip file, you need to decompress it into an .img file;
3. Write the .img file into the Micro SD card by [balenaEtcher](#) tool.

② System Boot

The DEBIX Model C motherboard defaults to NOR Flash boot. To enable NOR Flash boot, set the DIP switch to "100" (See the figure 1 below). Upon successful NOR Flash initialization, the system loads the U-Boot bootloader. At this point, the user may select the boot modes (SD card boot or eMMC boot).

Note: The SD card boot image and eMMC boot image do not contain Uboot files by default. Therefore, if the DIP switch is set to "011" or "010", the motherboard cannot be started.

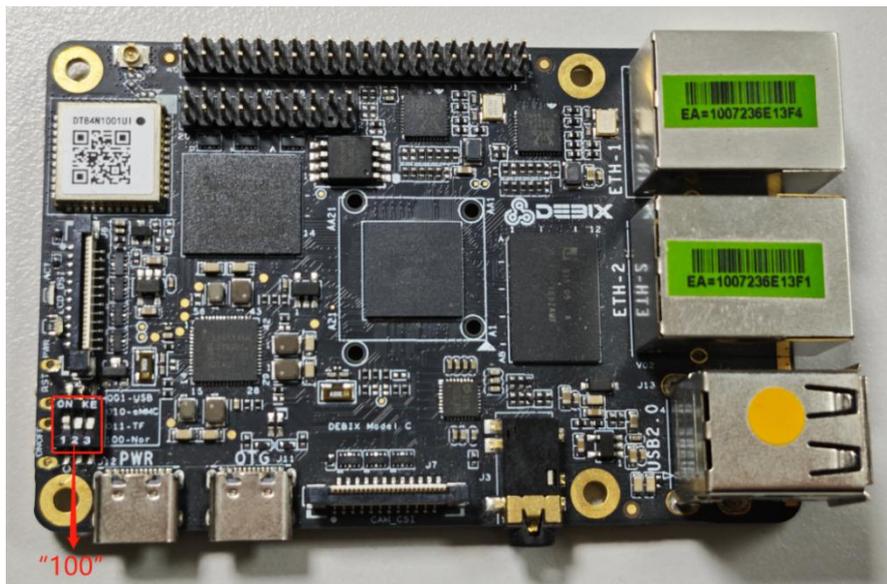


Figure 1 Nor Flash Boot Mode

IMPORTANT

If the Nor Flash is damaged and needs to be reprogrammed, please download the firmware file from: <https://we.tl/t-R4YunuTjg9>. Then follow the steps:

1. Set the motherboard DIP switch to "001" (USB Flash mode);
2. Connect the PC to the motherboard's OTG port using a Type-C data cable;
3. Run the following command: `./uuu -b qspi imx9_uboot_TD070A_V0.0.9.bin`
4. Power on the motherboard to start the programming process (See the figure below).

```
PS C:\Users\Administrator> cd C:\ModelC_uuu_nor_flash
PS C:\ModelC_uuu_nor_flash> ./uuu -b qspi imx9_uboot_TD070A_V0.0.9.bin
uuu (Universal Update Utility) for nxp imx chips — libuuu_1.5.21-0-g1f42172

Success 1   Failure 0

2:31    9/ 9 [Done] ] FB: done

PS C:\ModelC_uuu_nor_flash> .
```

A. Flashing Micro SD Image

- Component Preparation

- ✓ DEBIX Model C
- ✓ Micro SD card, and card reader
- ✓ DC 5V/2A power adapter
- ✓ PC (windows 10/11)

- **Installing the Boot from Micro SD Card Image**

Click [**Boot from SD Card**] to download the Micro SD card image for DEBIX Model C from [software download page](#) on your PC.

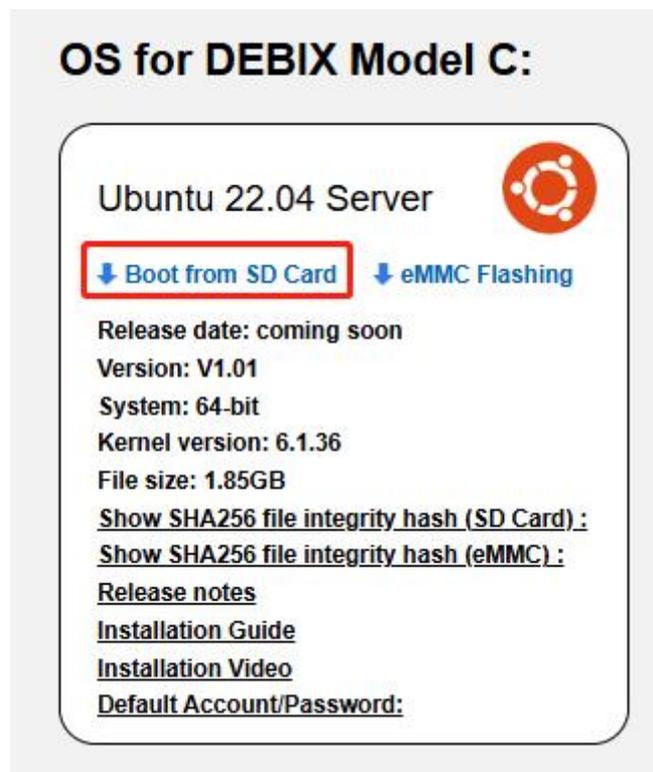


Figure 2 Download the Boot from SD Card Image

1. Install and open the Etcher tool on your PC, insert the Micro SD card, select the img file to be installed and the disk partition corresponding to the Micro SD card;

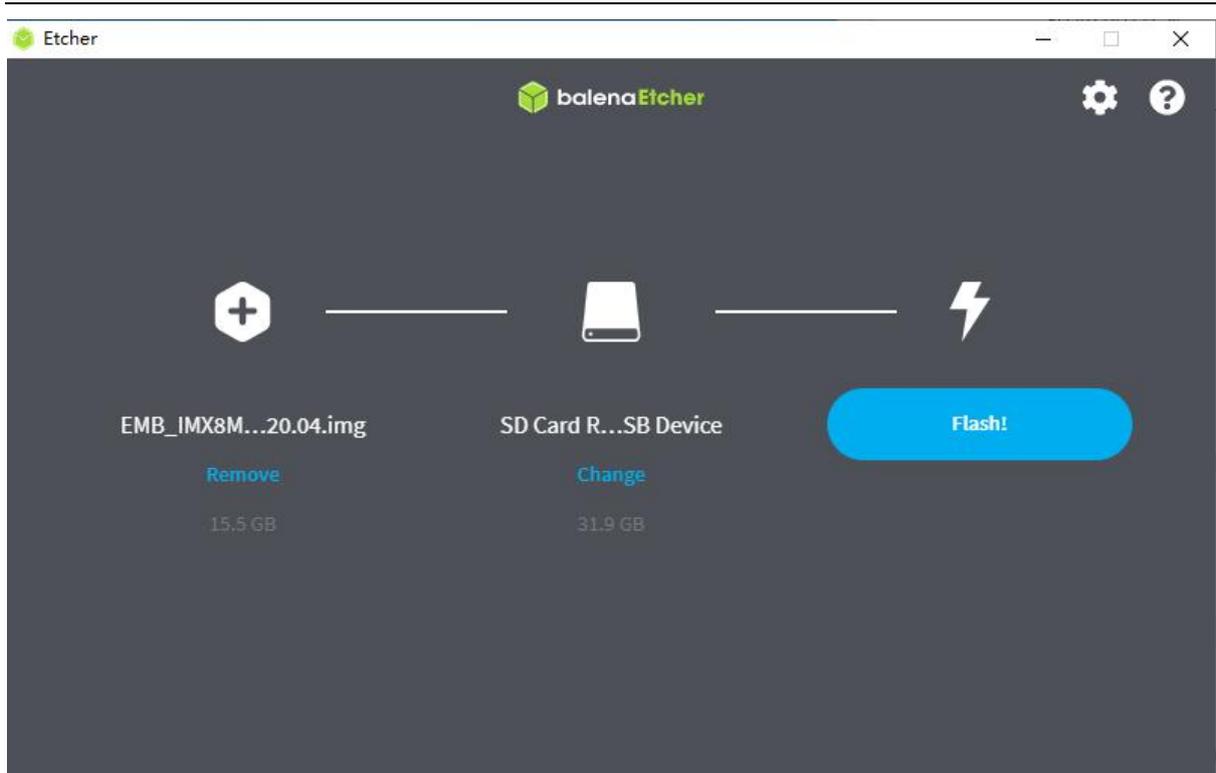


Figure 3

2. Click **[Flash!]** Wait patiently and the program will write the system to the Micro SD card;

NOTE

The system may prompt you that the disk is unavailable and needs to be formatted, please ignore it, it is not an error!

3. When **Flash Complete!** appears, it means the system has been successfully programmed to the Micro SD card;

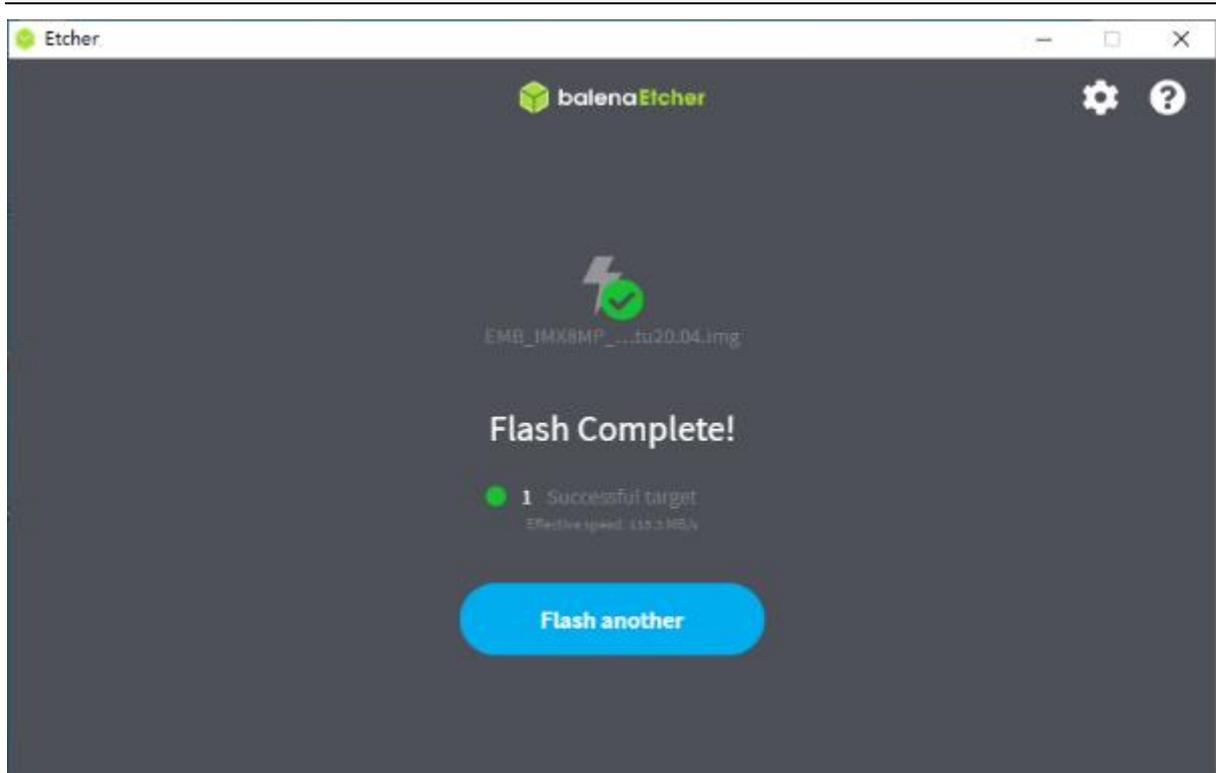


Figure 4

B. Flashing eMMC Image via Micro SD Card

● Component Preparation

- ✓ DEBIX Model C
- ✓ Micro SD card, and card reader
- ✓ DC 5V/2A power adapter
- ✓ PC (windows 10/11)

● Installing the Boot from eMMC Image on the Micro SD Card

IMPORTANT

For the default configuration, you need to select an eMMC module when purchasing.

Click [**eMMC Flashing**] to download the eMMC image for DEBIX Model C from [software download page](#).



Figure 5 Download the eMMC Image

1. Write the downloaded system image to the Micro SD card according to the steps 1-3 operation of "[Boot from Micro SD Card](#)".
2. Insert the Micro SD card into DEBIX Model C and power on. After booting, the system will automatically write to eMMC through the Micro SD card. When burning, the green LED on the motherboard will flash quickly, please wait. When the green LED changes from fast flash to slow flash, that is, the programming is complete.

C. Flashing eMMC Image via USB

● Component Preparation

- ✓ DEBIX Model C
- ✓ USB Type-C data cable
- ✓ DC 5V/2A power adapter
- ✓ PC (windows 10/11)

- **Flashing eMMC Image via USB**

IMPORTANT

- For the default configuration, you need to select an eMMC module when purchasing.
- These steps only supports flashing the Debian image.

1. Click **[Boot from SD Card]** and **[eMMC Flashing]** to download the system installation package and UUU tool, check the MD5 match after downloading, and then unzip it to PC;

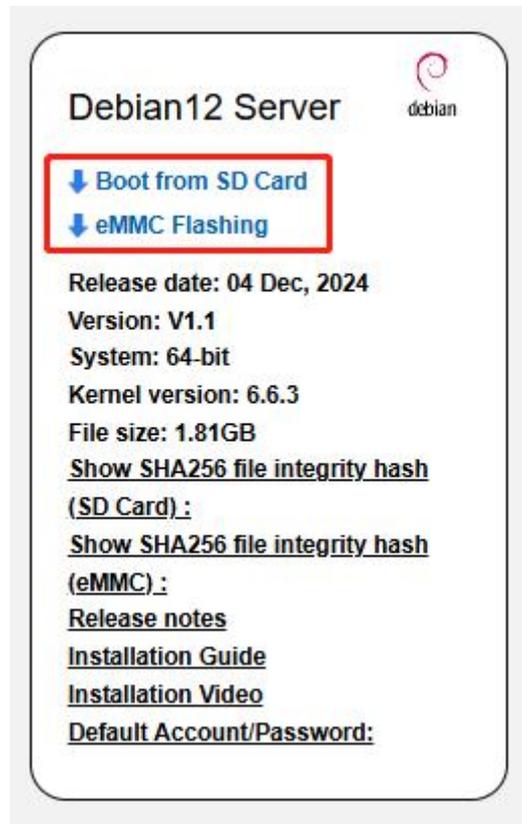


Figure 6 Download the Image and UUU Tool

2. Use USB cable to connect the OTG port of DEBIX to the USB port of PC, set the DIP switch to "001", connect the power supply, the system will enter the **USB burning** mode;
3. Run **Windows PowerShell** as administrator;
4. Type **cd** command to enter the root directory of the system installation package, for

example:

```
cd E:\ModelC\UUU_tools
```

5. Run the following command to download the file and start burning the system to eMMC;

```
./uuu -b emmc_all imx9_uboot.bin iMX93-Debian12-Model-C_V1.1_20241203.wic
```

6. Wait for the system burning to finish; when the terminal shows green "Done", it means the burning is finished;

```
PS C:\Users\Administrator> cd E:\ModelA_6.1.22\UUU_tools
PS E:\ModelA_6.1.22\UUU_tools> ./uuu -b emmc_all imx-boot-imx8mp-evk-sd.bin-flash_evk-ModelAB-248GBDDR .\ModelA-L6.1.22-TF-V3.12-20250326.img
uuu (Universal Update Utility) for nxp imx chips -- libuuu_1.5.21-0-g1f42172

Success 1   Failure 0

2:31    8/ 8 [Done] ] FB: done

PS E:\ModelA_6.1.22\UUU_tools>
```

7. After burning, disconnect the power supply and OTG USB cable, make sure the DEBIX is completely powered off, and then connect the power supply to start.