Flash eMMC Guide

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Document Revisions

2025-04-25	YC	Initial Version

Overview

This document describes the steps to flash the Android OS on the internal eMMC storage of the VR Android board:

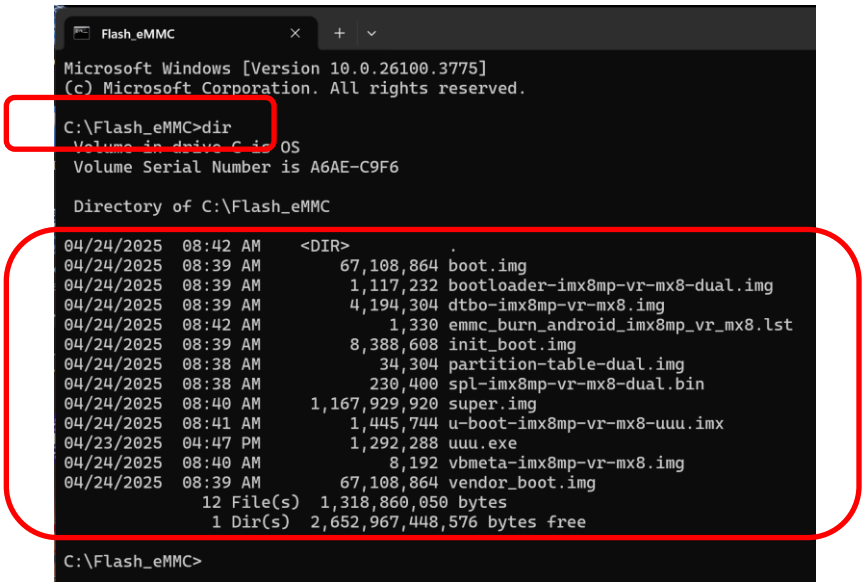
- VR linux board 6.x with Variscite VAR-SOM-MX8M-PLUS
- NXP UUU (Universal Update Utility) tool version 1.5.201: https://github.com/nxp-imx/mfgtools/releases

1 Steps to Flash eMMC

Step 1. Double-click the shortcut – “Flash_eMMC” on the screen

Figure 1. Click to Start the Flash

Step 2. In the opened command window, type the command – “dir” to check the image files as below:



```
Flash_eMMC
Microsoft Windows [Version 10.0.26100.3775]
(c) Microsoft Corporation. All rights reserved.

C:\Flash_eMMC>dir
 Volume in drive C is OS
 Volume Serial Number is A6AE-C9F6

 Directory of C:\Flash_eMMC

04/24/2025  08:42 AM    <DIR>          .
04/24/2025  08:39 AM        67,108,864 boot.img
04/24/2025  08:39 AM         1,117,232 bootloader-imx8mp-vr-mx8-dual.img
04/24/2025  08:39 AM         4,194,304 dtbo-imx8mp-vr-mx8.img
04/24/2025  08:42 AM             1,330 emmc_burn_android_imx8mp_vr_mx8.lst
04/24/2025  08:39 AM         8,388,608 init_boot.img
04/24/2025  08:38 AM            34,304 partition-table-dual.img
04/24/2025  08:38 AM           230,400 spl-imx8mp-vr-mx8-dual.bin
04/24/2025  08:40 AM     1,167,929,920 super.img
04/24/2025  08:41 AM         1,445,744 u-boot-imx8mp-vr-mx8-uuu.imx
04/23/2025  04:47 PM         1,292,288 uuu.exe
04/24/2025  08:40 AM             8,192 vbmeta-imx8mp-vr-mx8.img
04/24/2025  08:39 AM        67,108,864 vendor_boot.img
               12 File(s)  1,318,860,050 bytes
                1 Dir(s)  2,652,967,448,576 bytes free

C:\Flash_eMMC>
```

Figure 2. Check Image Files

Step 3. Set boot switch = 0, and remove the SD card from the slot:

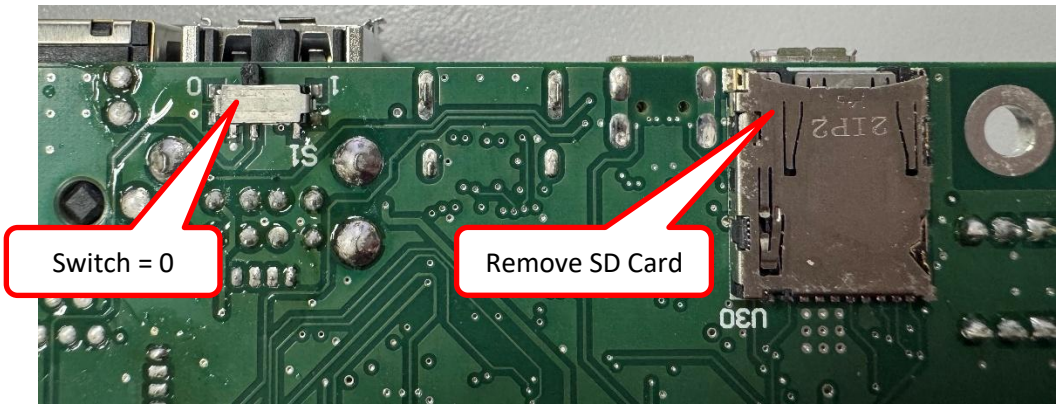


Figure 3. Set Boot Switch = 0 and Remove SD Card

Step 4. Connect the cable from the host Windows PC to the USB C port on the board:

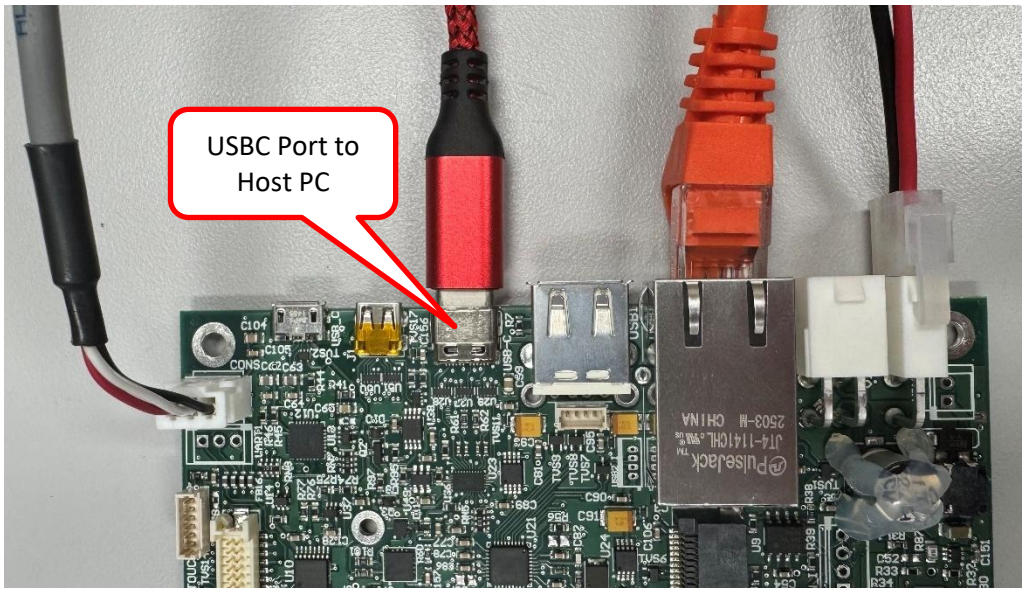


Figure 4. Connect all Cables

Step 5. Turn on the power. Start the programming by the command:

```
uuu emmc_burn_android_imx8mp_vr_mx8.lst
```

```
C:\Flash_eMMC>uuu emmc_burn_android_imx8mp_vr_mx8.lst
uuu (Universal Update Utility) for nxp imx chips -- libuuu_1.5.201-0-g727fc2b

Success 0    Failure 0


1:8341-1A18B 1/ 1 [================100%================] SDPS: boot -f u-boot-imx8mp-vr-mx8-uuu.imx
```

Figure 5. Start the Programming

Step 6. Wait till the programming is completed.

```
C:\Flash_eMMC>uuu emmc_burn_android_imx8mp_vr_mx8.lst
uuu (Universal Update Utility) for nxp imx chips -- libuuu_1.5.201-0-g727fc2b

Success 1    Failure 0


1:8341-     28/28 [Done                                   ] FB: done
1:8341-1A18B 1/ 1 [================100%================] SDPS: boot -f u-boot-imx8mp-vr-mx8-uuu.imx
```

Figure 6. Successful Programming

Final Step. Turn off the power. Then set boot switch = 1, and insert the SD card:

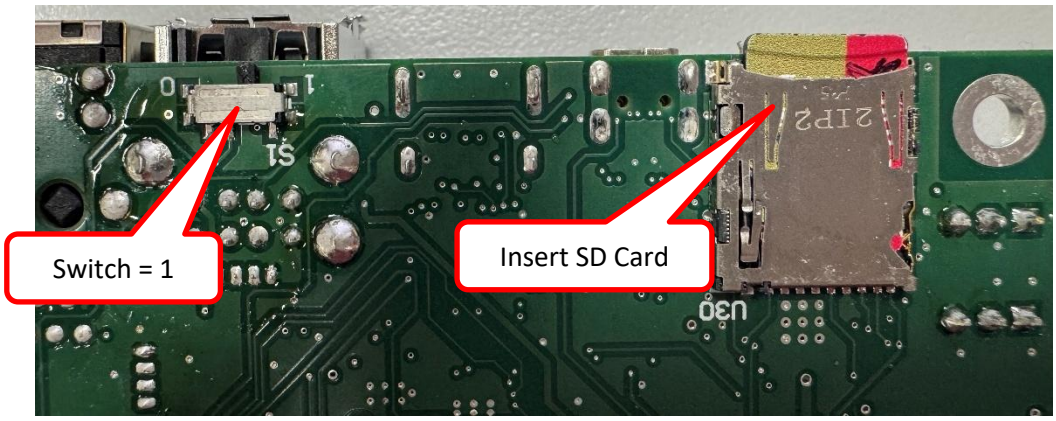


Figure 7. Set Boot Switch = 1 and Insert SD Card