

Smarc imx8mm SD Boot 与 SW2/SW3 测试

一、烧录系统

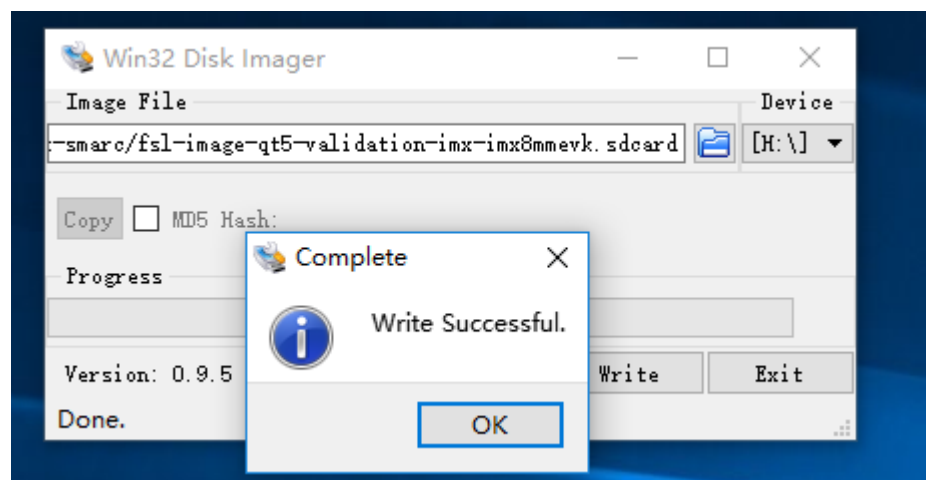
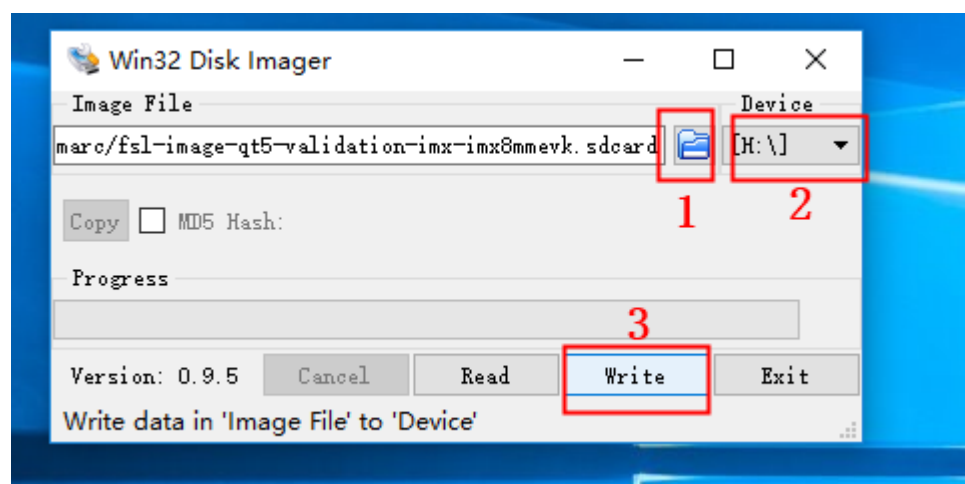
1. 进入烧录模式，S1 拨号为 10 101010，S2 默认 0100；
2. 用 Type-C 把 BOX 与 PC 连接，双击系统包中的 flash.bat 进行烧录；

Testing > imx8mm-yocto_REV-SA03-smarc_hwA01_20210415105958 > nxp-imx8_yocto_xwayland-imx8mmevk-smarc

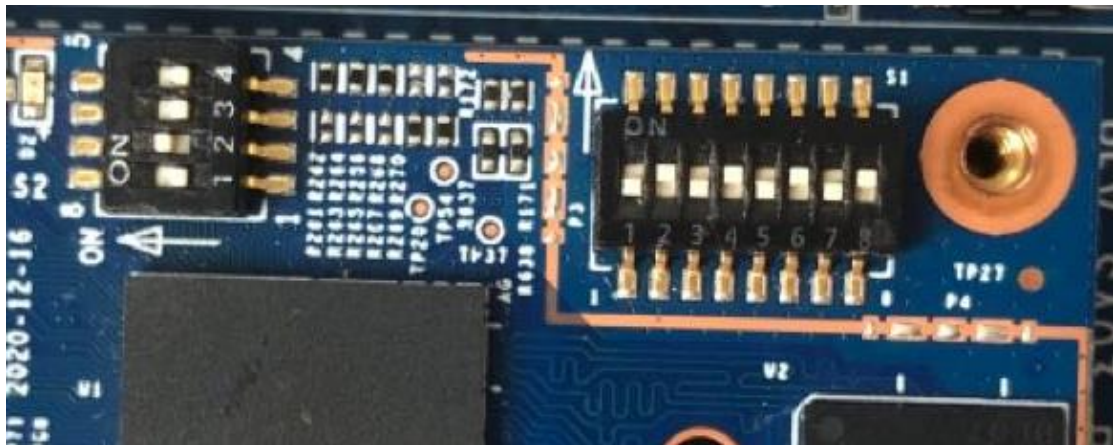
名称	修改日期	类型	大小
boot.img	2021/4/15 11:00	好压 IMG 压缩文件	65,1
flash.bat	2021/4/15 11:01	Windows 批处理...	
fsl-image-qt5-validation-imx-imx8mmevk.sdcard	2021/4/15 10:57	SDCARD 文件	3,12
imx-boot-imx8mmevk-fspi.bin-flash_evk_flexspi	2021/4/15 11:04	BIN-FLASH_EVK_...	1,4
imx-boot-sd.bin-flash_evk	2021/4/15 11:00	BIN-FLASH_EVK ...	1,3
partition-table.bpt	2021/4/15 11:00	BPT 文件	
partition-table.img	2021/4/15 11:00	好压 IMG 压缩文件	
rootfs.img	2021/4/15 11:00	好压 IMG 压缩文件	2,28
uuu.auto	2021/4/15 11:00	AUTO 文件	
uuu.exe	2021/4/15 11:00	应用程序	?

二、SD Boot

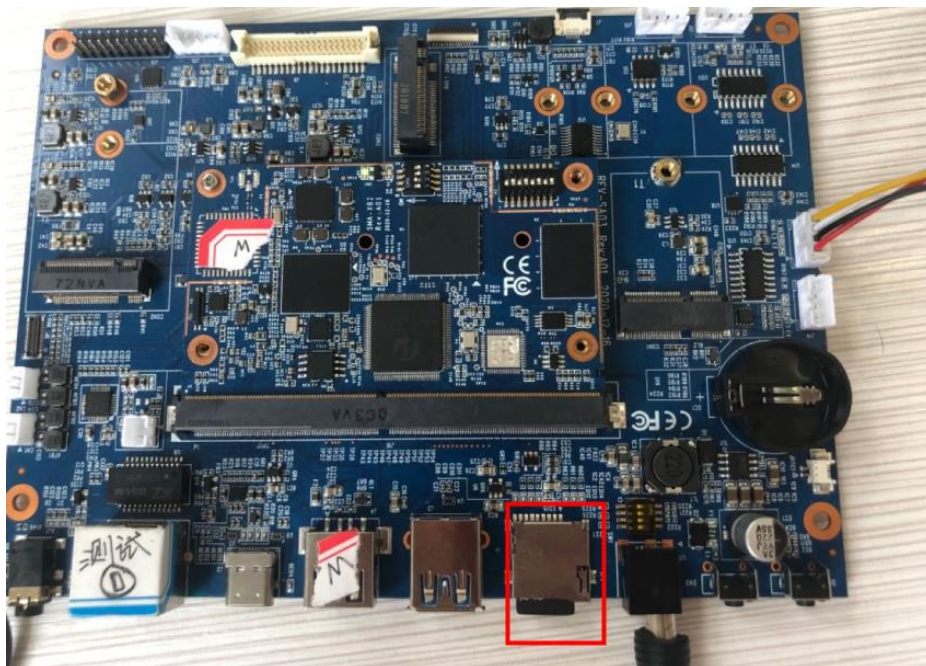
1. 准备 TF 卡，打开 ImageWriter 软件，把 fsl-image-qt5-validation-imx-imx8mmevk.sdcard 写入 TF 卡；



2. 设置 SD Boot 模式，S1 拨号为 01 010101，S2 默认 0100；



3. 把 TF 卡接到 BOX，并通电；系统正常启动，调试窗口打印如下；



```
NXP i.MX Release Distro 4.14-sumo imx8mmevk ttymxc1
imx8mmevk login:
NXP i.MX Release Distro 4.14-sumo imx8mmevk ttymxc1
imx8mmevk login:
NXP i.MX Release Distro 4.14-sumo imx8mmevk ttymxc1
imx8mmevk login: root
Last login: Fri Apr 23 07:13:45 UTC 2021 on tty7
root@imx8mmevk:~#
root@imx8mmevk:~#
root@imx8mmevk:~#
```

三、SW2 按键

1. 待系统正常启动，短按 SW2 按键，系统进入重启；
2. 建议用 128g、64g 内存的 TF 卡测试；

目前我这边测试发现：用内存小的卡（8g 16g），按 SW2 键后调试窗口不可操作；用内存大的卡（128g、64g）可以正常重启；

四、SW3 按键

1. 短按 SW3 的功能尚未定义，长按 6s 左右会关机；
2. 调试串口执行待机命令 `echo mem > /sys/power/state` 后，可以用此按键唤醒 BOX；

```
imx8mmevk login: root
Last login: Fri Apr 23 07:53:09 UTC 2021 on tty7
root@imx8mmevk:~# echo mem > /sys/power/state  待机
[ 127.438900] PM: suspend entry (deep)
[ 127.442484] PM: Syncing filesystems ... done.
[ 127.511481] Freezing user space processes ... (elapsed 0.001 seconds) done.
[ 127.519999] OOM killer disabled.
[ 127.523241] Freezing remaining freezable tasks ... (elapsed 0.001 seconds) done.
[ 127.531856] Suspending console(s) (use no_console_suspend to debug)

[ 127.617498] __lt9211_suspend__, line(1079): enter suspend
[ 127.617506] rtc_am1805_i2c_write:i2c write register
[ 127.617509] rtc_am1805_i2c_write i2c write 1b
[ 127.617511] rtc_am1805_i2c_write i2c write 00
[ 128.258873] PM: suspend devices took 0.724 seconds
[ 128.263304] Disabling non-boot CPUs ...
[ 128.279036] CPU1: shutdown
[ 128.279040] psci: CPU1 killed.
[ 128.302853] IRQ 6: no longer affine to CPU2
[ 128.302974] CPU2: shutdown
[ 128.302977] psci: CPU2 killed.
[ 128.326932] CPU3: shutdown
[ 128.326936] psci: CPU3 killed.
[ 128.328835] Enabling non-boot CPUs ...
[ 128.329022] Detected VIPT I-cache on CPU1
[ 128.329041] GICv3: CPU1: found redistributor 1 region 0:0x00000000388a0000
[ 128.329070] CPU1: Booted secondary processor [410fd034]
[ 128.329370] cache: parent cpu1 should not be sleeping
[ 128.329495] CPU1 is up
[ 128.329620] Detected VIPT I-cache on CPU2
[ 128.329632] GICv3: CPU2: found redistributor 2 region 0:0x00000000388c0000
[ 128.329649] CPU2: Booted secondary processor [410fd034]
[ 128.329819] cache: parent cpu2 should not be sleeping
```

唤醒打印