

一.Rock_5b使用介绍

1.所需配件

存储

tf卡、emmc、nvme任选其一

系统镜像文件

Official ROCK images can also be downloaded from




- [BaiduPan\(China\)](#)
- [ROCK 5 Image Development Build](#) - The latest system images.

For usernames and passwords please check the [FAQ](#).




Tools

Description	Linux	MacOS	Windows
Balena Etcher - A user friendly Image Writer	Linux 64bit Appliance Linux 32bit Appliance (old)	balenaEtcher-1.14.3.dmg	balenaEtcher-Portable-1.14.3.exe





Official Images

Distribution	Supported Boards	Description
	<ul style="list-style-type: none">ROCK 5B	
	<ul style="list-style-type: none">ROCK 5B	Debian Product. Installation Wiki Debian 11 Bullseye Change Log
	<ul style="list-style-type: none">ROCK 5B	Ubuntu Server Product. Installation Wiki Ubuntu Server 20.04. Change Log

Third Party Images

	RebornOS ARM Rock5B Beta	RebornOS ARM on Arch. Discussion Discord username and password are set upon installation Live w/Calamares for custom tailored installation of over 10 DE's based on preference. Installation Wiki Rolling ARM Distribution - - Made for you, made with you.
	Slarm64 Server (unofficial slackware) Slarm64 XFCE (unofficial slackware)	Build 2023-02-04. README.TXT Forum discussion
	DietPi ROCK 5B Bullseye	Added 2023-02-15 How to install
	Armbian for ROCK 5B	Added 2023-02-20

Community Built Images

Fork of Talos Linux for Rock 5 <i>Talos Linux is a modern Linux distribution built for Kubernetes</i>	 milas/rock5b-talos (Issues README Releases)  rock5-talos.png  rock5-talos.png  talos.dev (Official Upstream Docs) Forum Support Thread Added 2023-02-20
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[官方系统下载](#)

包括ubuntu、debian、安卓

官方系统账户密码 rock rock

armbian没用自己创建密码, 默认是 root 1234

自行编译armbian

注意boot要改成fat格式

```
BOOTFS_TYPE="fat"
```

[整合包系统下载@amazingfate](#)

[Openwrt]

[阿里云盘链接](#)

[Uos]

[阿里云盘链接](#)

基于Arch的RebornOs

<https://github.com/RebornOS-Developers/lxqt-rock5b-image>

[RebornOS论坛链接](#)

<https://forum.radxa.com/t/arch-based-rebornos-reviewed-on-rock5b/14237/5>

[Reborn OS安装wiki](#)

spi下载

[loader](#)

[官方spi-debug版](#)

[官方spi-关闭uboot串口输出](#)

[armbianspi](#)

[zero-擦除spi](#)

[SDK](#)

[rk驱动](#)

[RKDevTool](#)

[balenaEtcher](#)

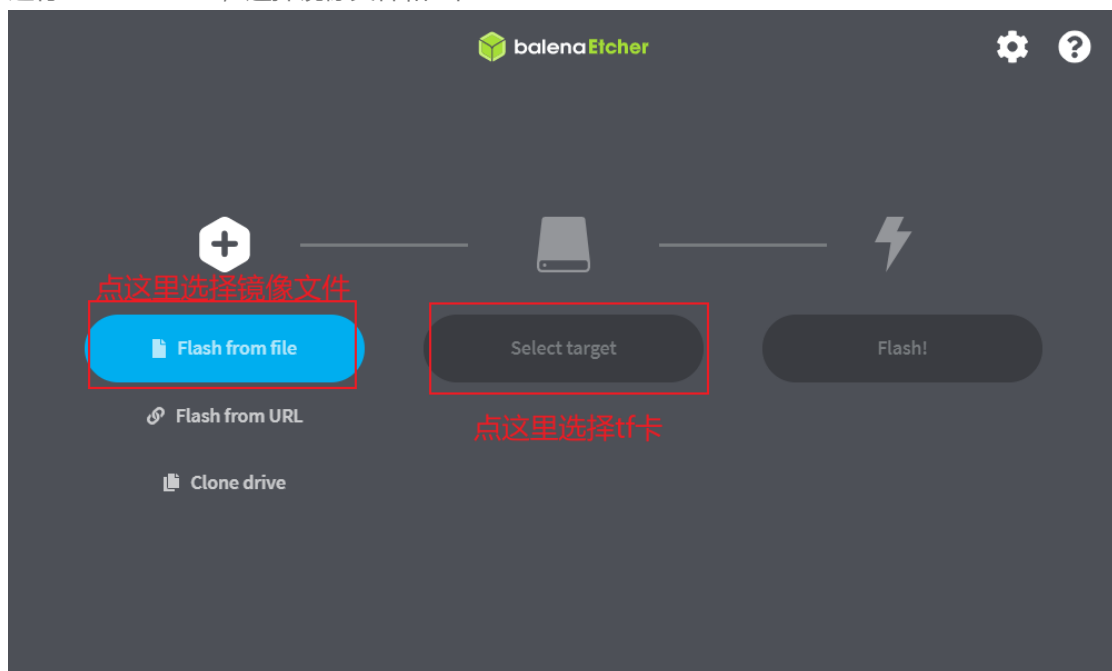
[Win32Diskimager](#)

2.win刷写镜像

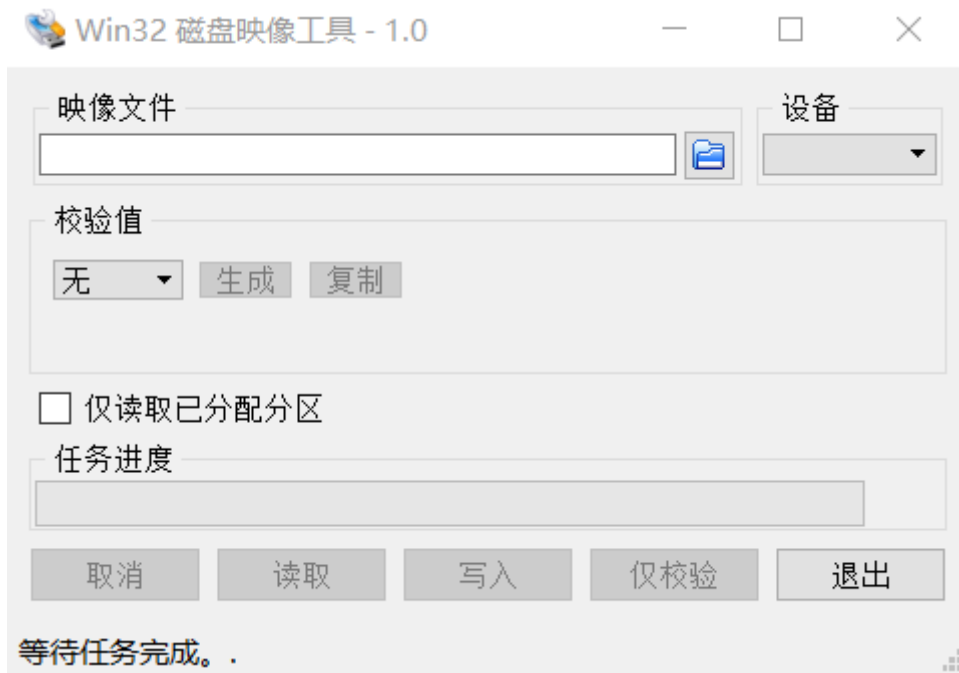
2.1.tf卡

- 使用 balenaEtcher 烧录

1. 使用读卡器把 TF 卡插入电脑
2. 使用解压软件解压镜像压缩包，解压后的文件中，以“.img”结尾的文件就是操作系统的镜像文件
3. 运行balenaEtcher，选择镜像文件和tf卡

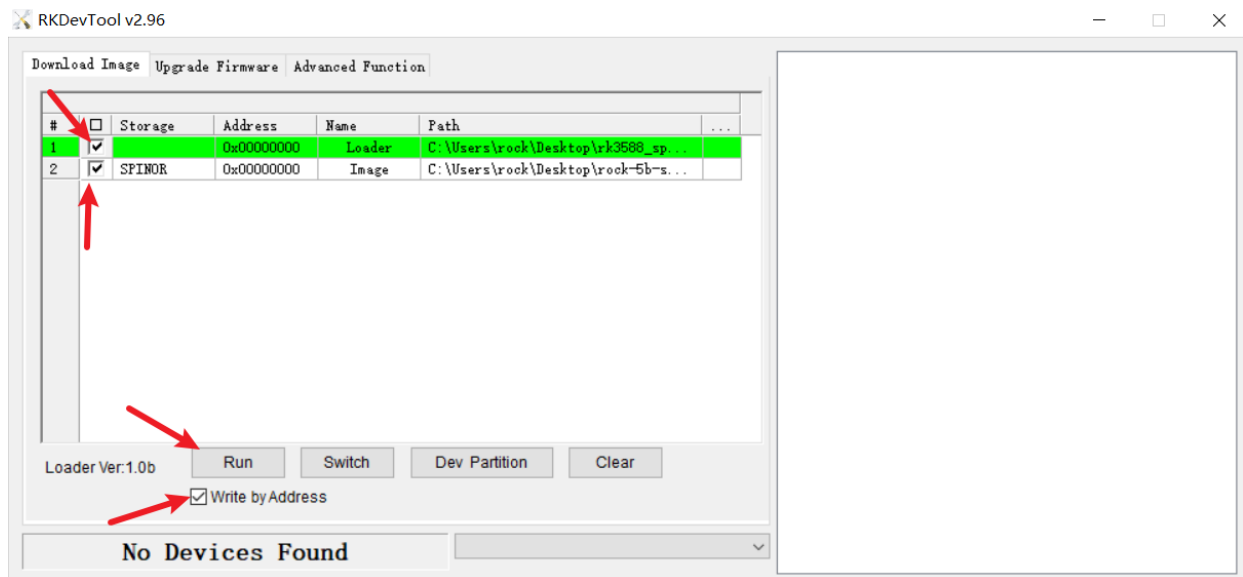


- 使用 Win32Diskimager 烧录



2.2.NVME固态

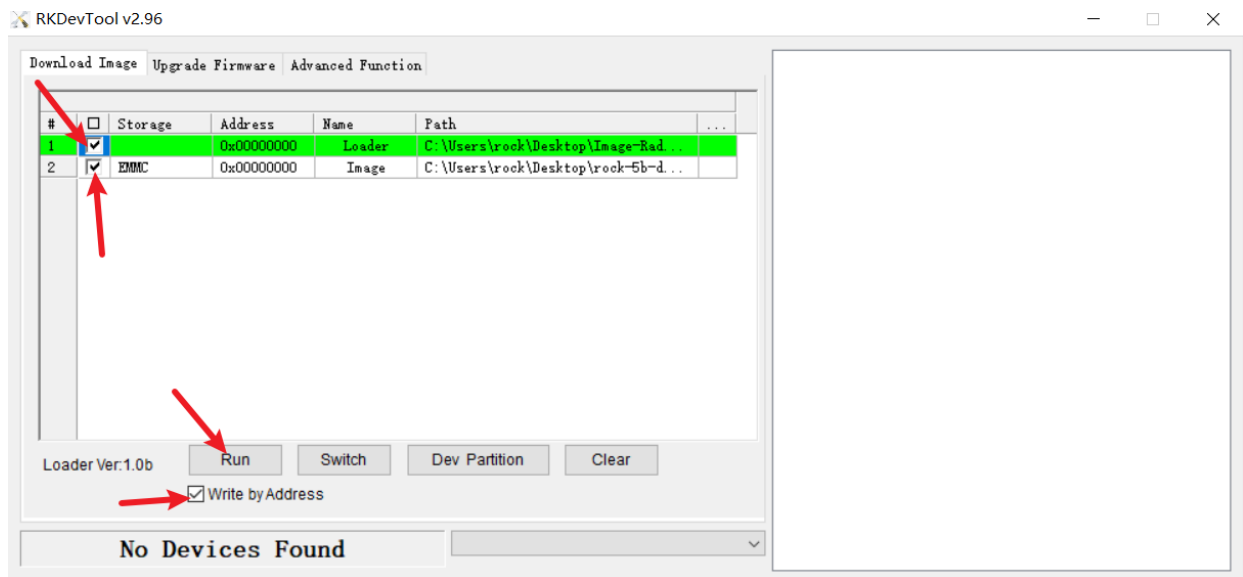
- 下载loader和对应的spi
- 下载RKDevTool和rk驱动，安装rk驱动，按住mskrom按钮后上电
- 打开RKDevTool，右键，load config 选择rock-5b-spinor.cfg



- spinor选择你下载的spi，loader选择下载的loader，点击run 刷写spi
- 按照刷写镜像到tf卡一样操作刷到nvme，插入5b通电开机

2.3 emmc

- 下载loader和系统镜像
- 下载RKDevTool和rk驱动，安装rk驱动，按住mskrom按钮后上电
- 打开RKDevTool，右键，load config 选择rock-5b-emmc.cfg



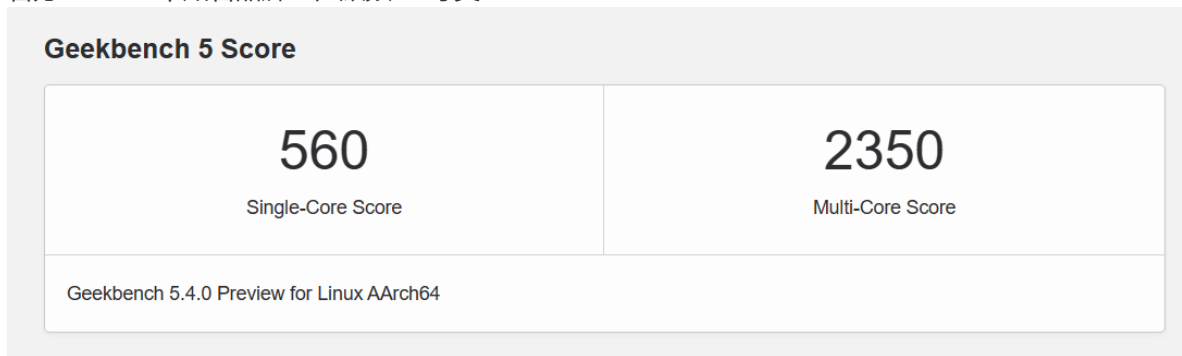
- image选择你下载的系统镜像，loader选择下载的loader，点击 run 刷写系统镜像
- emmc插入5b通电开机

3.Linux刷写镜像

使用dd命令，没有linux基础的请跳过

二.跑分参考

- 官方ubuntu-不知名品牌tf卡-默频2.5等奖



跑分软件

[geekbench5](https://www.geekbench.com/)

[geekbench6](#)

抽奖工具@[happyme531](#)

也可以手动抽奖

```
dmesg | grep pvtm
```

三.armbian系统超频

下载[unlock.dts](#)

修改13500000为你想要的电压

13500000是1.35v

上传到boot目录

```
armbian-add-overlay unlock.dts
```

四.网卡蓝牙修复(ax系列网卡)

[MoMo](#) ax210

[半世一夕](#) ax200

ax210 005批次

```
sudo mv /usr/lib/firmware/iwlwifi-ty-a0-gf-a0.pnvm /usr/lib/firmware/iwlwifi-ty-a0-gf-a0.bak
```

五.驱动

. GPU

添加@[amazingfate](#)大佬的ppa源

只适用ubuntu22.04 LTS(jammy)

```
sudo add-apt-repository ppa:liujianfeng1994/panfork-mesa
sudo apt update
```

中科大ppa反代加速

```
sudo find /etc/apt/sources.list.d/ -type f -name "*.list" -exec sed -i.bak -r
's#deb(-src)?\s*http(s)?://ppa.launchpad.net#deb\1
http2://launchpad.proxy.ustclug.org#ig' {} \;
```

• 多媒体娱乐

包括 chromium110、ffmpeg4.4、gststreamer、kodi19.4、moonlight、obs28 等

```
sudo add-apt-repository ppa:liujianfeng1994/rockchip-multimedia
sudo apt update
```

六.定制自己的armbian

- 首先克隆@[amazingfate](#)的[armbian-compile-action](#)，再克隆[armbian-rock5b-images](#)
- 修改armbian-compile-action中的action.yml

```
./compile.sh /
BOARD=${{ inputs.board }} /
BRANCH=${{ inputs.branch }} /
RELEASE=${{ env.release }} /
BUILD_MINIMAL=${{ env.build-minimal }} /
BUILD_DESKTOP=${{ env.build-desktop }} /
KERNEL_ONLY=no /
KERNEL_CONFIGURE=no /
DESKTOP_ENVIRONMENT=${{ env.desktop-environment }} /
DESKTOP_ENVIRONMENT_CONFIG_NAME=${{ env.desktop-environment-config-name }} /
DESKTOP_APPGROUPS_SELECTED=${{ env.desktop-appgroups-selected }} /
EXPERT=${{ env.expert }} /
BOARD_FIRMWARE_INSTALL="-full" /
SHARE_LOG=no /
DEBUG=yes /
COMPRESS_OUTPUTIMAGE=sha,gpg,xz
# 修改相应参数
touch .ignore_changes
    wget https://github.com/amazingfate/armbian-h88k-
images/raw/master/board-dts-add-h88k.patch -O patch/kernel/rockchip-rk3588-
legacy/board-makefile-add-h88k.patch
    mkdir -p arch/arm64/boot/dts/rockchip/
    wget https://github.com/amazingfate/armbian-h88k-
images/raw/master/rk3588-h88k.dts -O arch/arm64/boot/dts/rockchip/rk3588-
h88k.dts
    git diff --no-index --output=./patch/kernel/rockchip-rk3588-
legacy/board-dts-add-h88k.patch /dev/null arch/arm64/boot/dts/rockchip/rk3588-
h88k.dts || ls -l ./patch/kernel/rockchip-rk3588-legacy/board-dts-add-h88k.patch
    wget https://github.com/amazingfate/armbian-h88k-
images/raw/master/h88k.csc -O config/boards/h88k.csc
    cp -r patch/u-boot/legacy/board-rock-5b patch/u-boot/legacy/board_h88k
    sed -i "s|# CONFIG_SENSORS_PWM_FAN is not
set|CONFIG_SENSORS_PWM_FAN=y|g" config/kernel/linux-rockchip-rk3588-
legacy.config
    sed -i "s|ext4|fat|g" config/boards/rock-5b.wip
```



```

wget https://github.com/amazingfate/armbian-h68k-
images/raw/master/backport-v6.0.16.patch -O patch/kernel/archive/rk35xx-
5.10/backport-6.0.16.patch

wget https://github.com/amazingfate/armbian-h68k-
images/raw/master/board-add-hinlink-h6xk-makefile.patch -O
patch/kernel/archive/rk35xx-5.10/board-add-hinlink-h6xk-makefile.patch

wget https://github.com/amazingfate/armbian-h68k-
images/raw/master/rk3568-hinlink-h6xk.dtsi -O
arch/arm64/boot/dts/rockchip/rk3568-hinlink-h6xk.dtsi

wget https://github.com/amazingfate/armbian-h68k-
images/raw/master/rk3568-hinlink-h66k.dts -O
arch/arm64/boot/dts/rockchip/rk3568-hinlink-h66k.dts

wget https://github.com/amazingfate/armbian-h68k-
images/raw/master/rk3568-hinlink-h68k.dts -O
arch/arm64/boot/dts/rockchip/rk3568-hinlink-h68k.dts

git diff --no-index --output=./patch/kernel/archive/rk35xx-5.10/rk3568-
dtsi-add-hinlink-h6xk.patch /dev/null arch/arm64/boot/dts/rockchip/rk3568-
hinlink-h6xk.dtsi || ls -l ./patch/kernel/archive/rk35xx-5.10/rk3568-dtsi-add-
hinlink-h6xk.patch

git diff --no-index --output=./patch/kernel/archive/rk35xx-5.10/board-
dts-add-hinlink-h66k.patch /dev/null arch/arm64/boot/dts/rockchip/rk3568-
hinlink-h66k.dts || ls -l ./patch/kernel/archive/rk35xx-5.10/board-dts-add-
hinlink-h66k.patch

git diff --no-index --output=./patch/kernel/archive/rk35xx-5.10/board-
dts-add-hinlink-h68k.patch /dev/null arch/arm64/boot/dts/rockchip/rk3568-
hinlink-h68k.dts || ls -l ./patch/kernel/archive/rk35xx-5.10/board-dts-add-
hinlink-h68k.patch

wget https://github.com/amazingfate/armbian-h68k-
images/raw/master/linux-rk35xx-legacy.config -O config/kernel/linux-rk35xx-
legacy.config

wget https://github.com/amazingfate/armbian-h68k-
images/raw/master/hinlink-h66k.conf -O config/boards/hinlink-h66k.conf

wget https://github.com/amazingfate/armbian-h68k-
images/raw/master/hinlink-h68k.conf -O config/boards/hinlink-h68k.conf

git status

# 需要打自己的补丁和内核config的参考以上指令

```

- 修改armbian-rock5b-images的build.yml

```

BOARD: [rock-5b]
DISTRO: [armbian]
FLAVOR: [ubuntu]
BRANCH: [legacy]
# 修改以上四个参数

```

push触发action构建，开始构建系统然后上传release

七.其他问题与参考资料

配件兼容列表

[固态](#)

[网卡](#)

[电源](#)

Docker不能使用

```
sudo update-alternatives --set iptables /usr/sbin/iptables-legacy
sudo update-alternatives --set ip6tables /usr/sbin/ip6tables-legacy
```

或者参考[文档](#)勾选相关选项编译内核替换

内核编译

Firefox主页问题

修改配置文件

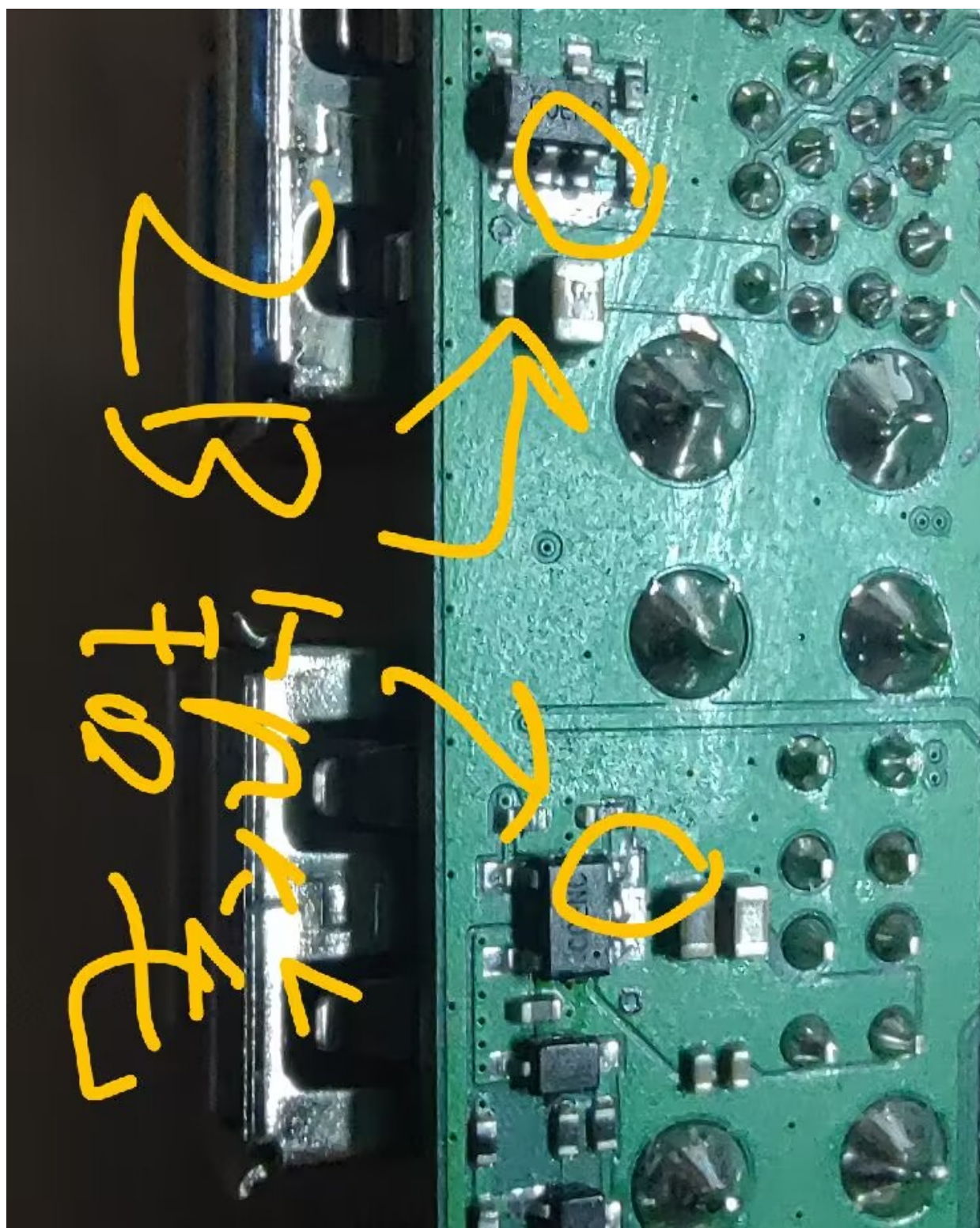
```
/usr/lib/firefox-esr/mozilla.cfg
```

5b主线内核进度

[kevinxiasx的wiki](#) [git仓库](#)

ffmpeg补丁

USB电流限制



怕电流太大可以拿铅笔涂一涂测一测，电流小就多涂点，电流大就像橡皮擦一擦