

# 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
<a href="#">Balena Etcher</a> - A user friendly Image Writer	<a href="#">Linux 64bit Appliance</a>   <a href="#">Linux 32bit Appliance (old)</a>	<a href="#">balenaEtcher-1.14.3.dmg</a>	<a href="#">balenaEtcher-Portable-1.14.3.exe</a>





[Official Images](#)

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

[Third Party Images](#)

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

[Community Built Images](#)

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

## [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]@微信张鹏

[阿里云盘链接](#)

用户名密码:

root

123456

<https://zphj1987.com/docs/rk3588/%E8%BF%9B%E9%98%B6%E7%AF%87/%E6%93%8D%E4%B D%9C%E7%B3%BB%E7%BB%9F%E7%9B%B8%E5%85%B3/rock5b%E5%8F%AF%E4%BB%A5%E 8%BF%90%E8%A1%8C%E7%9A%84UOS%E6%93%8D%E4%BD%9C%E7%B3%BB%E7%BB%9F.ht ml>

## 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](#)

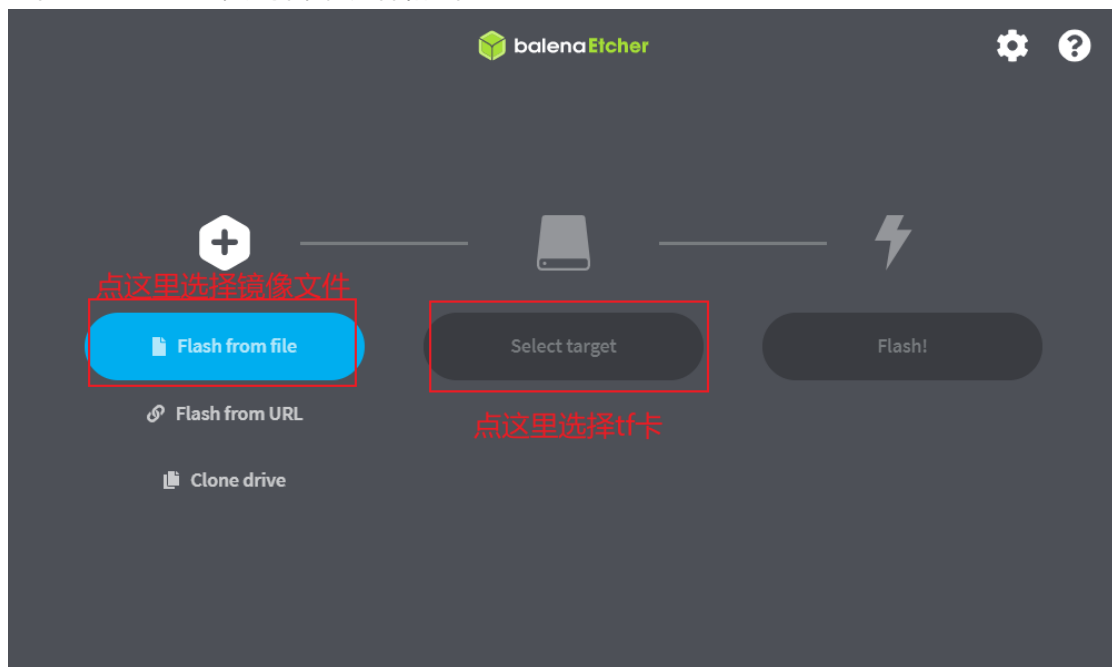
[Win32Diskimager](#)

## 2.win刷写镜像

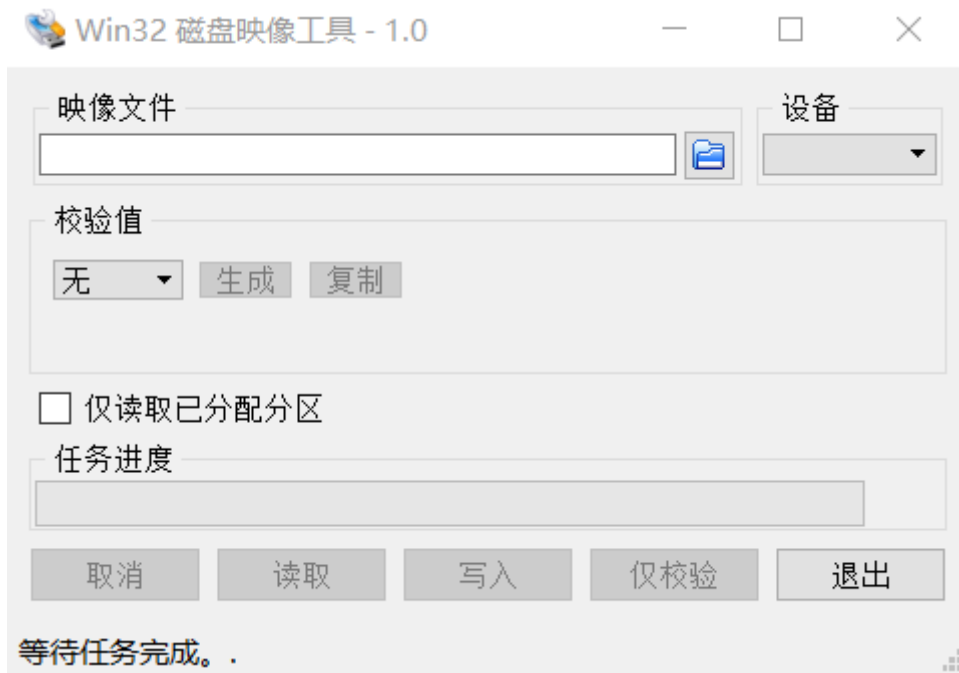
### 2.1.tf卡

- 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

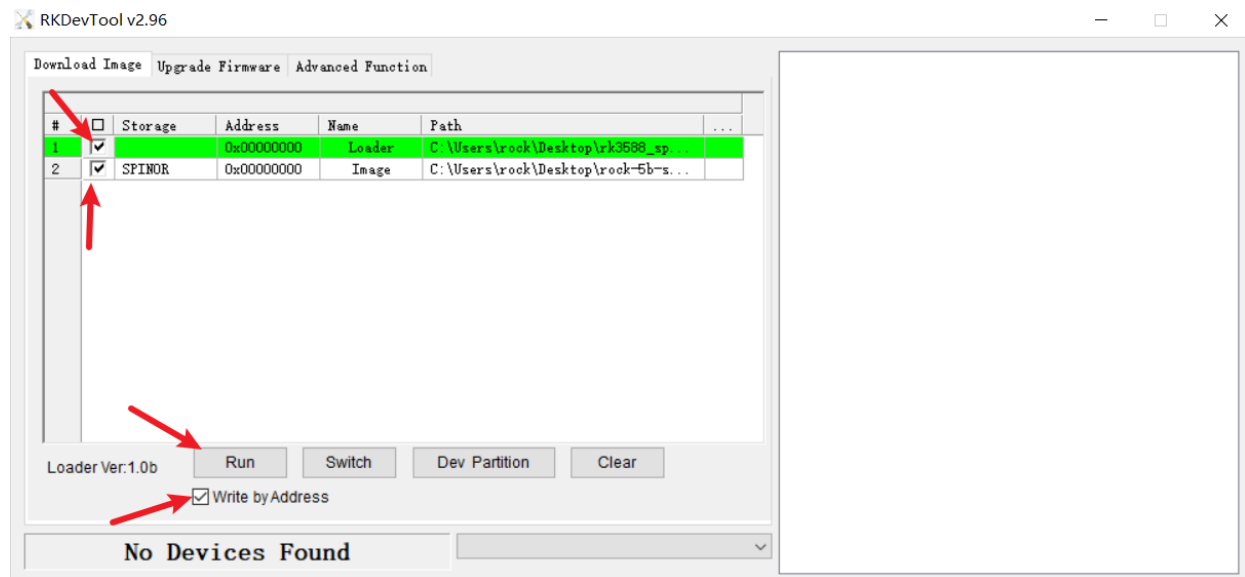


- 使用 Win32Diskimager 烧录



## 2.2.NVME固态

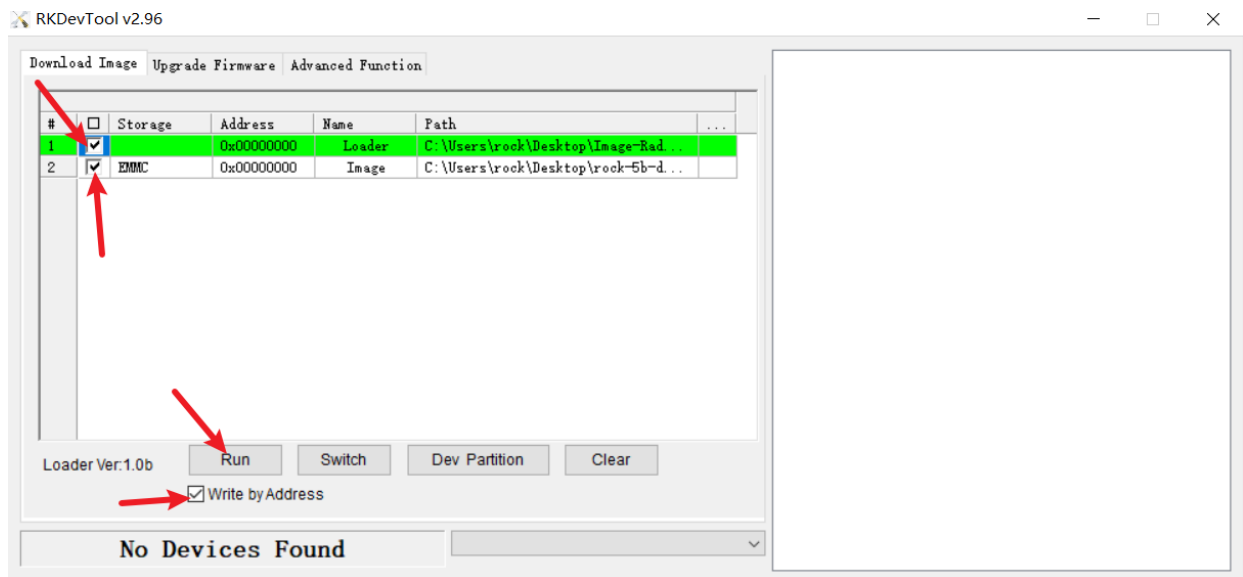
- 下载loader和对应的spi
- 下载RKDevTool和rk驱动，安装rk驱动，按住mskrom按钮后上电
- 打开RKDevTool，右键，load config 选择rock-5b-spinor.cfg



- 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



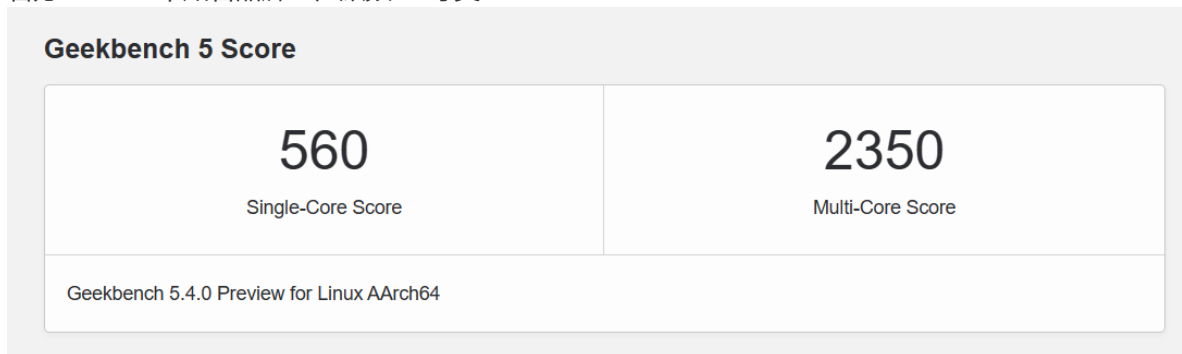
- image选择你下载的系统镜像，loader选择下载的loader，点击 run 刷写系统镜像
- emmc插入5b通电开机

### 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

- 微信

```
sudo add-apt-repository ppa:liujianfeng1994/wechat
sudo apt update
sudo apt install wechat-uos
```

```
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](#)

---

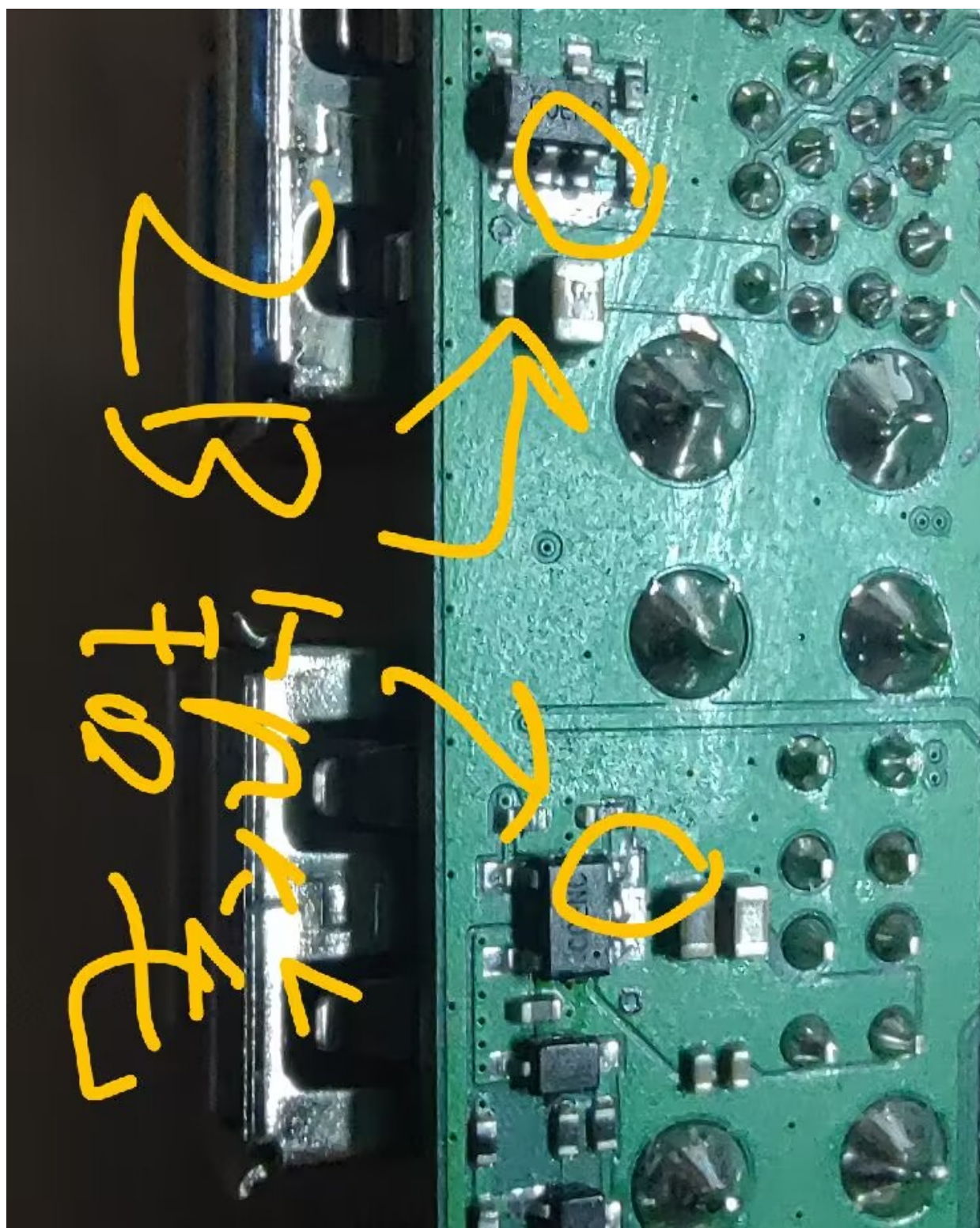
[kevinxiasx的wiki](#)   [git仓库](#)

### [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