

这个过程过于简单了，水一篇得了。我使用的机器是 ROG Zephyrus G14 2024 + Arch Linux。

先找到一个 repo，[gpu-unlock-ada](#)，clone 之后使用如下方法在机器中编译并安装对应包：

```
make install-arch shell  
sudo mkinitcpio -P
```

由于我的机器使用的是 Limine，所以需要在 cmdline 后加半行启动选项：

```
/Arch Linux (linux)  
  protocol: efi  
  path: boot():/EFI/Linux/arch-linux.efi  
  cmdline: root=PARTUUID=2fef8961-e3cd-46a5-ba36-  
d976353f35d6 zswap.enabled=0 rootflags=subvol=@ rw  
rootfstype=btrfs gpu_unlock.targets=0000:01:00.0  
gpu_unlock.ad107_experimental=1
```

冷却 30s 后重启。

查看启动日志里是否出现了 unlock：

```
sudo journalctl -k -b | grep gpu_unlock
[sudo] password for lumiere:
Oct 27 14:50:03 wirbelwind kernel: Command line:
root=PARTUUID=2fef8961-e3cd-46a5-ba36-d976353f35d6
zswap.enabled=0 rootflags=subvol=@ rw rootfstype=btrfs
gpu_unlock.targets=0000:01:00.0
gpu_unlock.ad107_experimental=1
Oct 27 14:50:03 wirbelwind kernel: Kernel command line:
root=PARTUUID=2fef8961-e3cd-46a5-ba36-d976353f35d6
zswap.enabled=0 rootflags=subvol=@ rw rootfstype=btrfs
gpu_unlock.targets=0000:01:00.0
gpu_unlock.ad107_experimental=1
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: loading
out-of-tree module taints kernel.
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: module
verification failed: signature and/or required key missing
- tainting kernel
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: ROM chain:
pos=0x0 data=0x52494350 bytes=64512 type=0x0 last=0
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: ROM chain:
pos=0xfc00 data=0x52494350 bytes=86016 type=0x3 last=0
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: ROM chain:
pos=0x24c00 data=0x5344504e bytes=24576 type=0xe0 last=0
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: ROM chain:
pos=0x2ac00 data=0x5344504e bytes=491008 type=0xe0
last=128
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: ROM
expansion: base=0xfc00 ext=0x24c00 adjust=0x15000
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: ROM BIT:
offset=0x1b0 size=12 stride=6 tokens=19 adjust=0x15000
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: ROM ucode
table: offset=0xa282d version=1 header=6 stride=6
entries=16
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: FWSEC
descriptor: offset=0x4581c ROM_bytes=1048576
header=0x32c0301
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: FWSEC
geometry: image_off=0x45b48 size=0x10500 imem=0xf700
va=0x0 pa=0x0 dmem=0xd80 pa=0x0 pkc=0xb24 interface=0x1c
engine=0x400 ucode=9 signatures=2 versions=0x3 bytes=768
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: FWSEC
interface: offset=0x1c version=1 header=4 stride=8
entries=2 FRTS=0x1ffa00000
Oct 27 14:50:03 wirbelwind kernel: gpu_unlock: FWSEC
```

出现了，回到原 repo，再检查一次：

```
$ python3 tools/read_sm_rates.py --expect-uuid  
GPU-666c50a2-aca8-340c-1aa7-70995d9d69fa  
{  
  "gpu": "GPU-666c50a2-aca8-340c-1aa7-70995d9d69fa, NVIDIA  
  GeForce RTX 4060 Laptop GPU, 00000000:01:00.0, 615.78.08,  
  [N/A], 210, 7001", "command": "0x20801230", "rates":  
  {  
    "imla0": 0, "fm1a16": 0, "dp": 0, "fm1a32": 0, "ffma": 0,  
    "imla1": 0, "imla2": 0, "imla3": 0, "imla4": 0},  
  "meaning": "0=full; 1=half; 2=quarter; higher values are  
  further reductions", "hardware_changes": false}
```

最后是压力测试，如下附件：