Innosilicon A10 Unlock SSH Instructions

For MacOS

Open **Terminal.app** on your MacOS computer.

Install **Homebrew** if you don’t already have it installed by pasting the following into the command line area:

/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"

Then press **Enter**

Type your computer’s password if needed and wait until it's all installed.

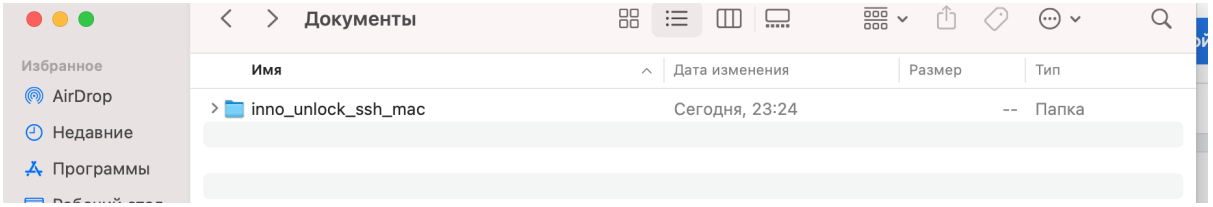
Then type **brew install jq** and **Enter**

Then type **brew install curl** and **Enter**

Download this file from Github:

https://github.com/offordscott/unlock-ssh-innosilicon-a10/raw/main/inno_unlock_ssh_mac.zip

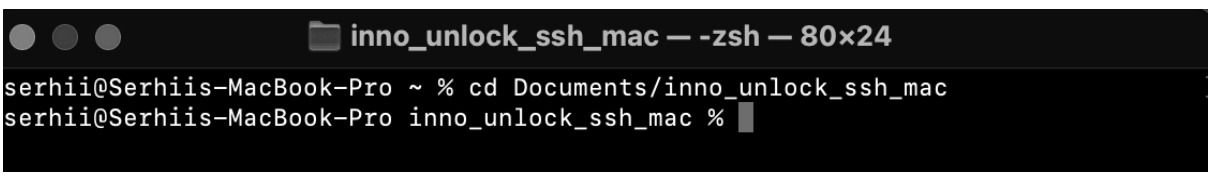
Then unpack **inno_unlock_ssh_mac.zip** into the **Documents** folder of the Mac



Open the folder **inno_unlock_ssh_mac** in the Finder.app

Using **Textedit.app**, open **ips.txt** and write in your miner’s IP address and save and exit the text file.

Then, open Terminal and type **cd Documents/inno_unlock_ssh_mac/**



Then, type **sh t2ti** and press **Enter**

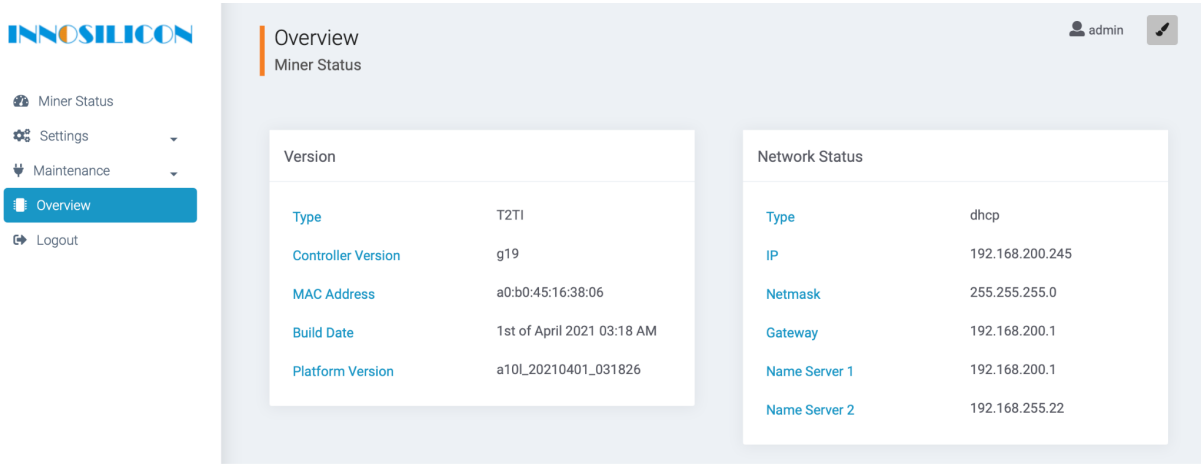
```
serhii@Serhiis-MacBook-Pro inno_unlock_ssh_mac % sh t2ti

-e IPs count        1

-e > Processing admin@192.168.200.245
start
TOKEN = eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJBc2ljTWluZXIiLCJpYXQiOjE
2MzEzOTQyMDMsImV4cCI6MTYzMTQxNTgwMywidXNlciI6ImFkbWluIn0.6jy9pPN9GHhk-V9OU_odrQ3
Htz3a6VuDSfpjptdbi_s

{"success":true}-e OK
serhii@Serhiis-MacBook-Pro inno_unlock_ssh_mac %
```

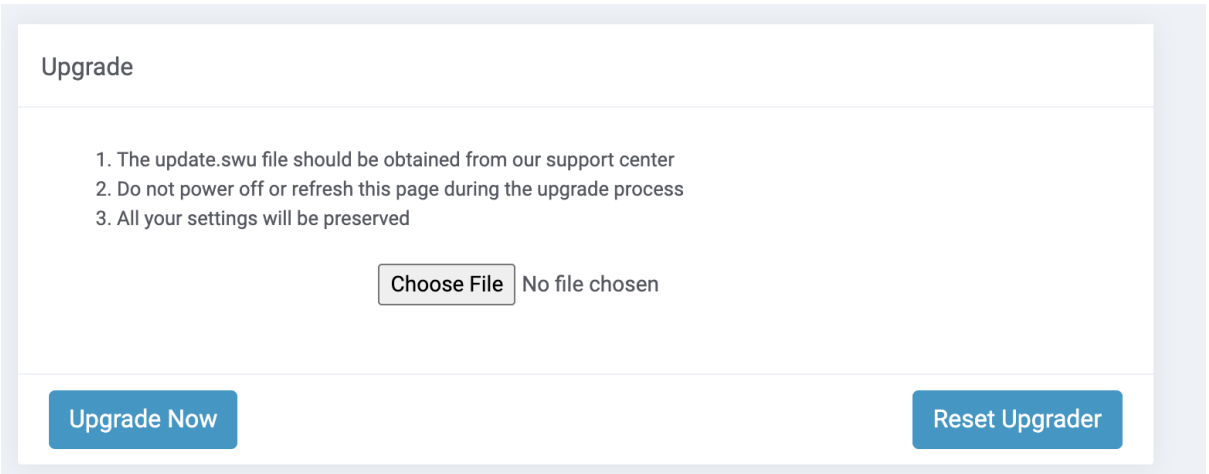
Then, check in the miner's web interface that model is **t2ti**



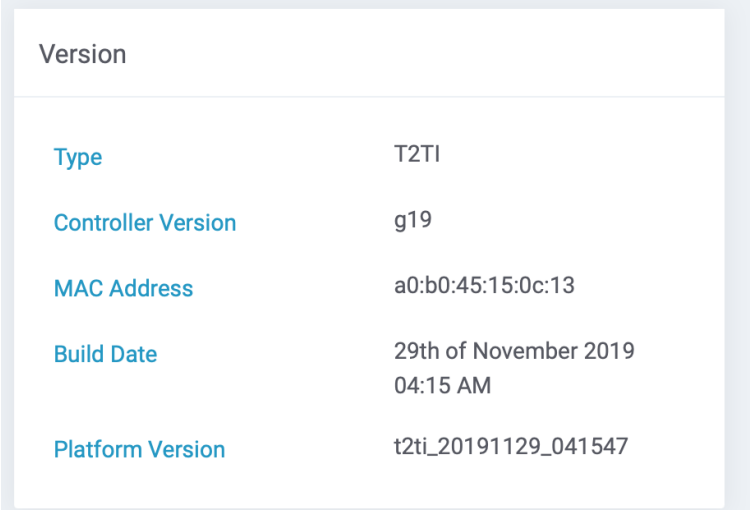
Then, update the firmware via **Maintenance > Firmware** in the miner's navigation menu.

Download the firmware for t2ti g19 found here:

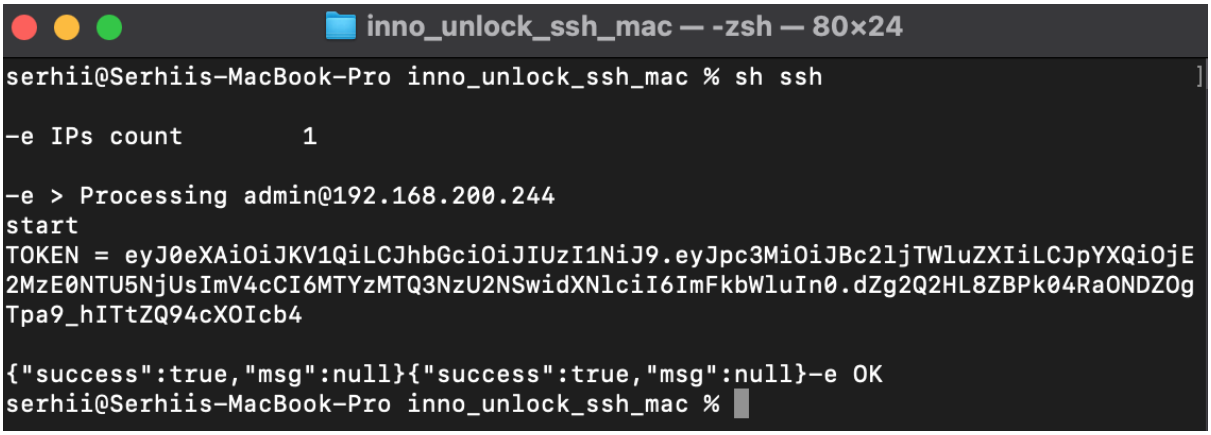
https://github.com/offordscott/unlock-ssh-innosilicon-a10/raw/6f21980474d04caf2498826cbb8c703ab3260b13/t2ti_20191129_041547.swu



In the miner's Overview page, check if Build Date & Platform Version have been updated.

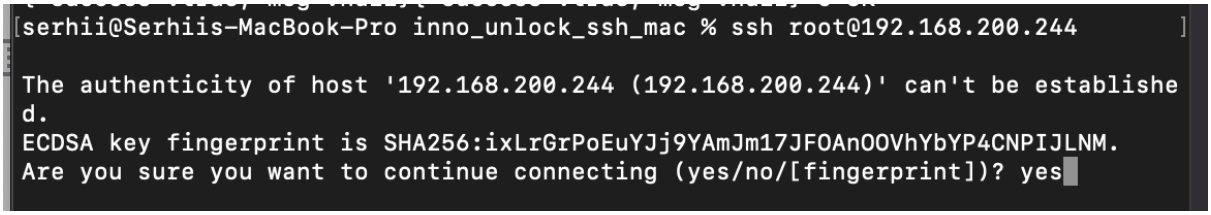


Then, type **sh ssh** and press **Enter**

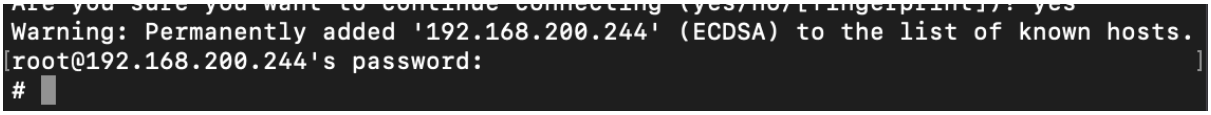


Then, type **ssh root@ip** where **ip** is the miner's IP address and press **Enter**

Type **yes** if it asks if you want to continue connecting, then press **Enter**



It will ask you for a password. Type **1** and press **Enter** (you will not see password)



Then, type **fw_printenv image_flag** and press **Enter**

If **image_flag=0,** type: **fw_printenv rootfs0_nand_address**	If **image_flag=1,** type: **fw_printenv rootfs1_nand_address**

```
image_flag=0
[# fw_printenv rootfs0_nand_address                                    ]
rootfs0_nand_address=0x1780000
#
```

Then, compare with the list below and search for other **rootfs**.

0x000000000000-0x000000400000	bootloader	**mtd0**
0x000000400000-0x000000480000	env	**mtd1**
0x000000480000-0x000000500000	dtb-main	**mtd2**
0x000000500000-0x000000580000	dtb-alt	**mtd3**
0x000000580000-0x000000980000	fpga-main	**mtd4**
0x000000980000-0x000000d80000	fpga-alt	**mtd5**
0x000000d80000-0x000001280000	kernel-main	**mtd6**
0x000001280000-0x000001780000	kernel-alt	**mtd7**
0x000001780000-0x0000074c0000	rootfs-main	**mtd8**
0x0000074c0000-0x00000d200000	rootfs-alt	**mtd9**
0x00000d200000-0x00000dc00000	config	**mtd10**
0x00000dc00000-0x00000ee00000	events	**mtd11**
0x00000ee00000-0x000010000000	miners	**mtd12**

Use one of the two **mtd**:

If **image_flag 0,** use **mtd9**	If **image_flag 1,** use **mtd8**

Then, type **ubiattach -m 9** and press **Enter** (where **9** is **mtd** of another rootfs)

```
[# ubiattach -m 9                                                      ]
UBI device number 2, total 746 LEBs (94724096 bytes, 90.3 MiB), available 0 LEBs
 (0 bytes), LEB size 126976 bytes (124.0 KiB)
#
```

Then, type the following, one line at a time. Pressing **Enter** after each line.

mount -t ubifs -o sync,noatime,rw ubi2:rootfs /mnt/

rm /mnt/etc/shadow

rm /mnt/etc/passwd

rm /mnt/etc/ssh/sshd_config

cp /etc/shadow /mnt/etc/shadow

cp /etc/passwd /mnt/etc/passwd

cp /etc/ssh/sshd_config /mnt/etc/ssh/sshd_config

sync

umount /mnt/

ubidetach -m 8

```
# mount -t ubifs -o sync,noatime,rw ubi2:rootfs /mnt/
# rm /mnt/etc/shadow
# rm /mnt/etc/passwd
# rm /mnt/etc/ssh/sshd_config
# cp /etc/shadow /mnt/etc/shadow
# cp /etc/passwd /mnt/etc/passwd
# cp /etc/ssh/sshd_config  /mnt/etc/ssh/sshd_config
# sync
# umount /mnt/
```

Then, if **image_flag 0**, type:	If **image_flag 1**, type:
fw_setenv image_flag 1 **reboot**	**fw_setenv image_flag 0** **reboot**

```
# fw_setenv image_flag 1
# reboot
Connection to 192.168.200.244 closed by remote host.
Connection to 192.168.200.244 closed.
serhii@Serhiis-MacBook-Pro inno_unlock_ssh_mac %
```

Wait until the miner reboots.

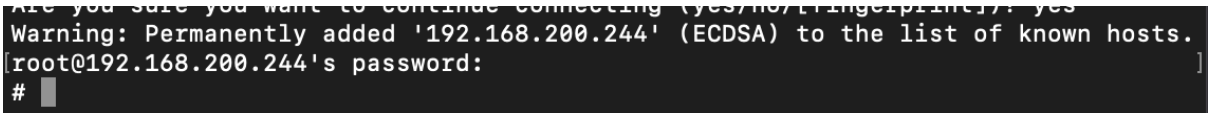
Then, type **ssh root@ip** where **ip** is miner's IP address, and press **Enter**

If it asks: "Are you sure you want to continue connecting?", type **yes** and press **Enter**

```
serhii@Serhiis-MacBook-Pro inno_unlock_ssh_mac % ssh root@192.168.200.244

The authenticity of host '192.168.200.244 (192.168.200.244)' can't be establishe
d.
ECDSA key fingerprint is SHA256:ixLrGrPoEuYJj9YAmJm17JFOAnOOVhYbYP4CNPIJLNM.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
```

It will then ask for a password. Type **1** and press **Enter** *(you will not see password)*



In Terminal, type **fw_printenv,** then press **Enter**

Look for something like this:

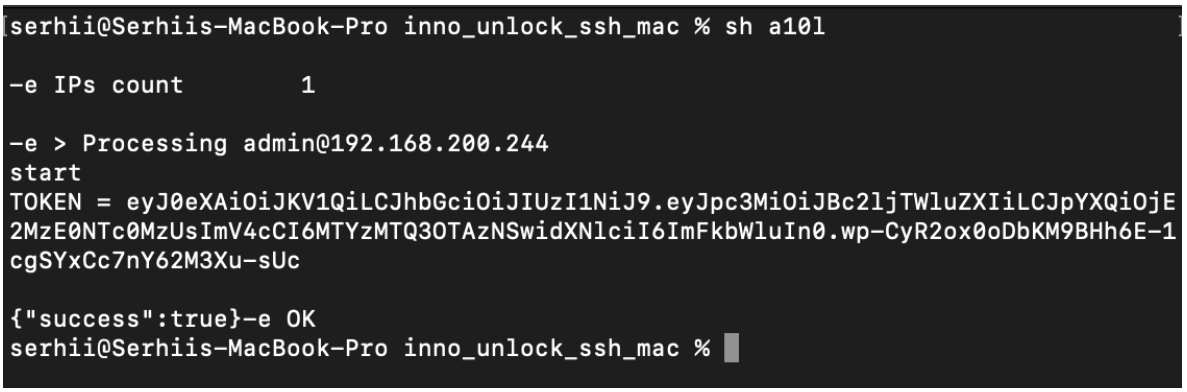
version_0=**a10l**_20210108_052921
version_1=t2ti_20191129_041547

Then, in Terminal, type **exit**, and press **Enter**

Then, in Terminal, according to the firmware version_0 variable, type one of these:

sh a10l	**sh a10x**	**sh a10u**	**sh 10s**	**sh a10x**

Then press **Enter**



ALL YOUR BASE ARE BELONG TO US.

The SSH of your Innosilicon A10 is unlocked!

For help, contact t.me/offordscott