HOW TO OVERLOCK

ANTIMINER S9
(up to 17.5-18TH)

1. List of ASIC's you can succefully overclock

2. Max hashrate (overclocked)

3. Pools suitable for overclocking

4. The detailed guide to overclocking

1. These S9 ASIC's can be sucessfully overclocked

   * 13T

   * 13.5T

   * 14T

* 14.5T

* S9I

* S9J

2. Overclocked hashrate and power consumption

The maximum achivable is 20TH, but still we recommend not to go beyond 16-16.5TH at 1600W power consumption, if you want to overlock up to 17-18 TH you need more powerful power supply 2500w.

Below is a table with hashrate->power usage->profit comparison. Calculations were based on USD 0.05 for kw/h electricity bill and the cost of bitcoin to date 10.17.2018:

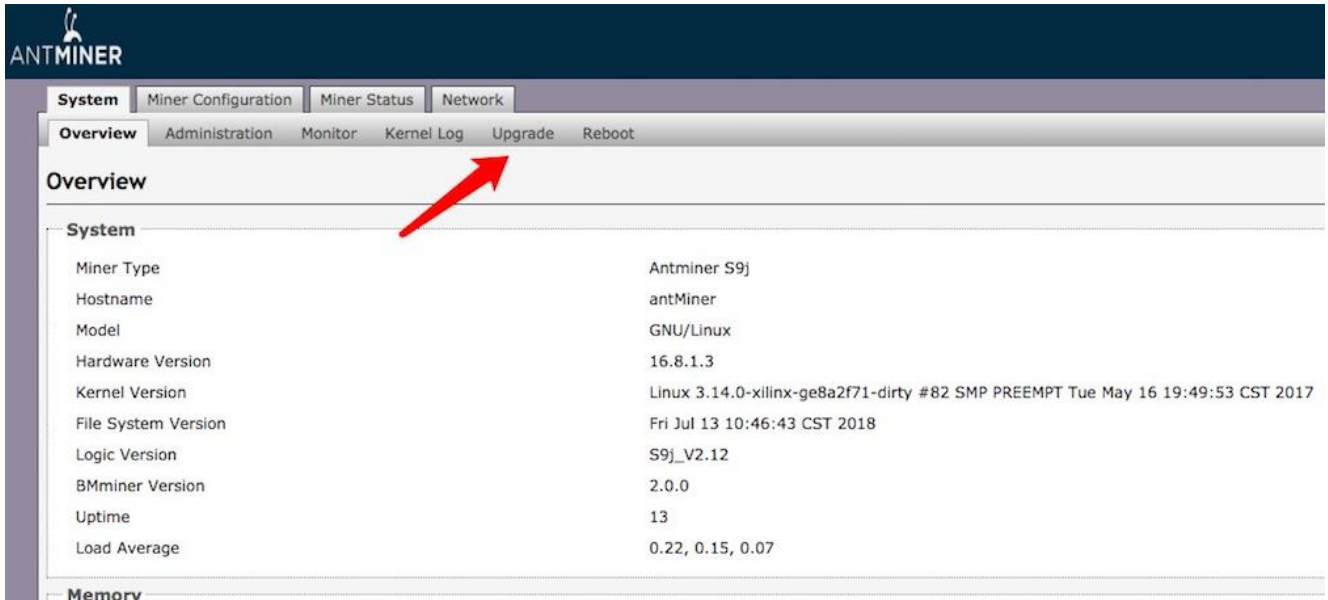| Hashrate	Power consumption	Electricity costs	Pure profit	Comments
13.5 TH	1400 W	1,85 $	0,98 $	Standard BITMAIN FIRMWARE S9
15 TH	1400 W	1,85 $	1,29 $	
15.5 TH	1450 W	1,91 $	1,33 $	
16 TH	1500 W	1,98 $	1,37 $	
16.5 TH	1600 W	2,12 $	1,34 $	
17 TH	1750 W	2,31 $	1,25 $	PSU 2200w
17.5 TH	1800 W	2,37 $	1,29 $	PSU 2400w
18 TH	1950W	2,57 $	1,2 $	PSU 2500w

3. Overclockable pools

Our firmware supports all pools that support ASICBoost:
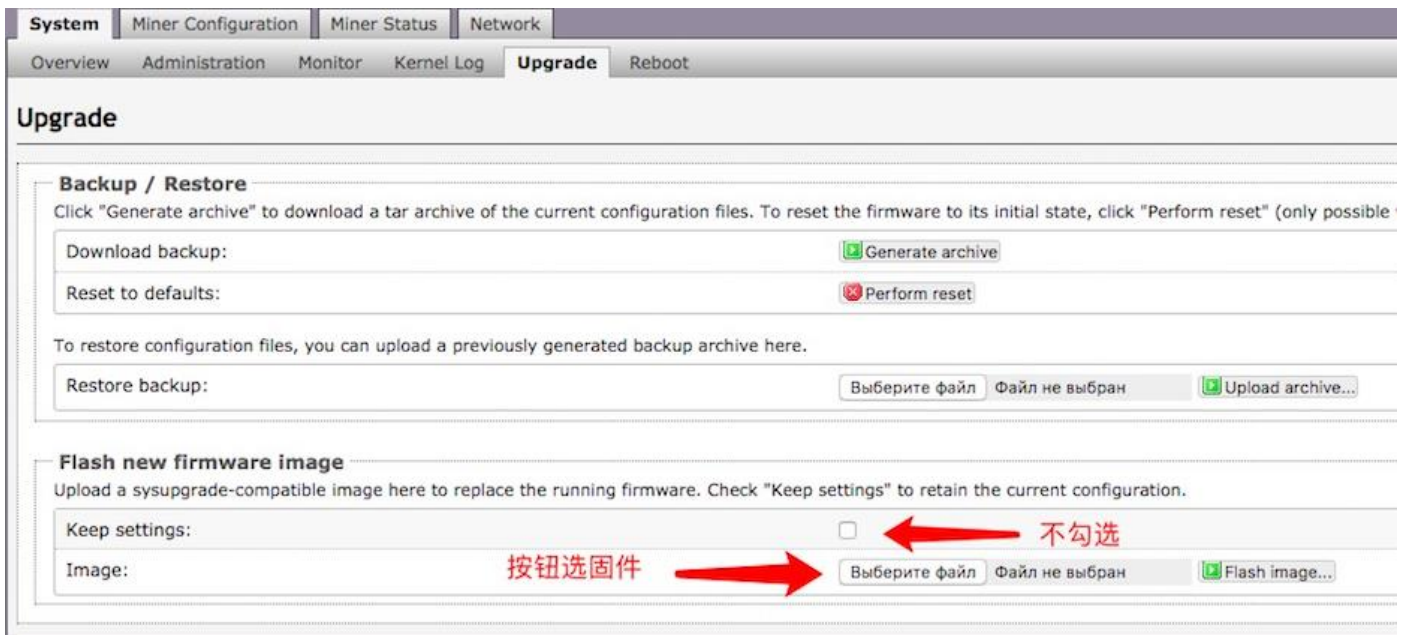
* Antpool [stratum+tcp://stratum.antpool.com:3333]

* F2pool [stratum+tcp://stratum.antpool.com:3333]

* SLUSHPOOL [stratum+tcp://stratum.antpool.com:3333]

* BTC.COM [stratum+tcp://cn.ss.btc.com:1800]

* and other pools

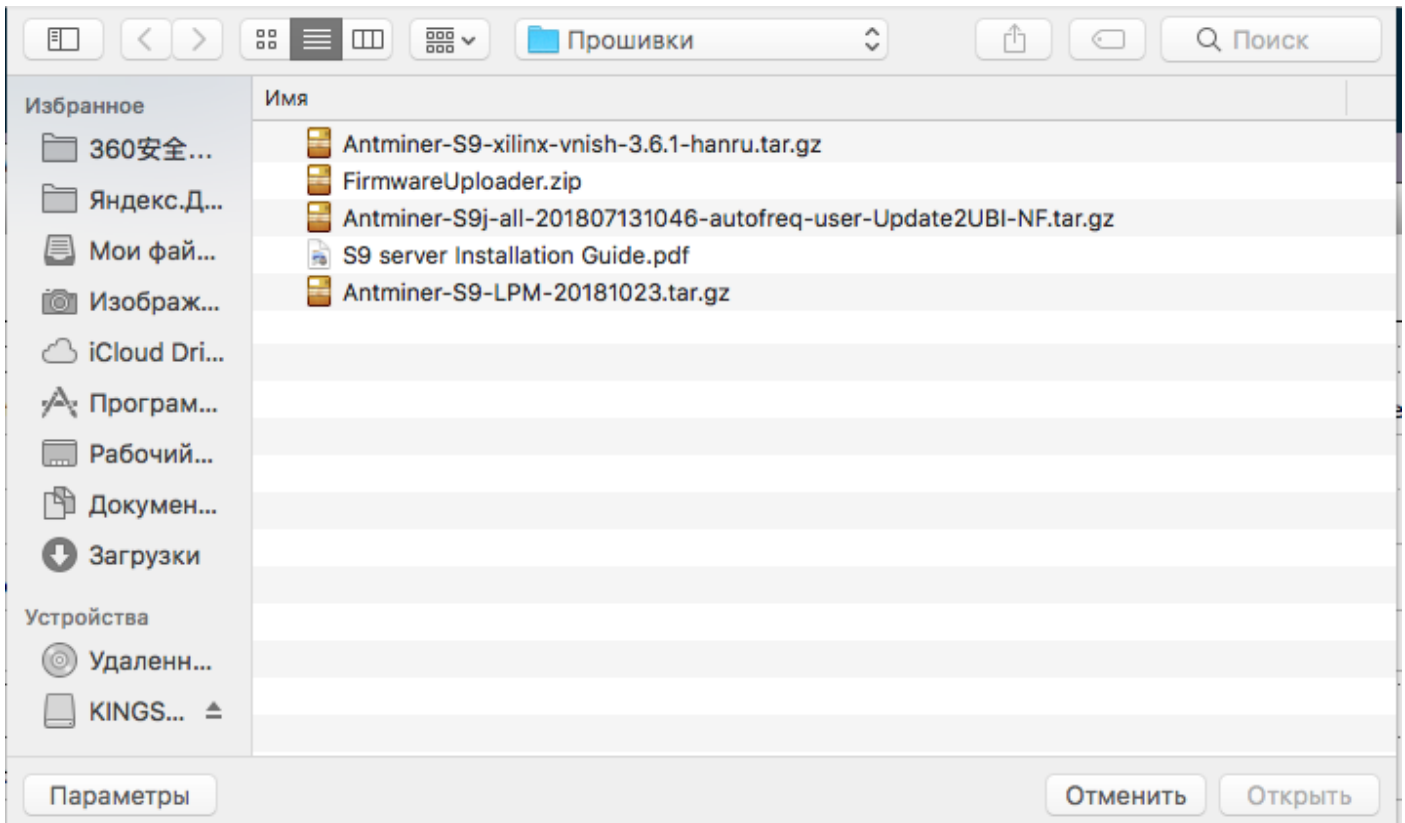# 4. The detailed firmware installation and overclocking guide

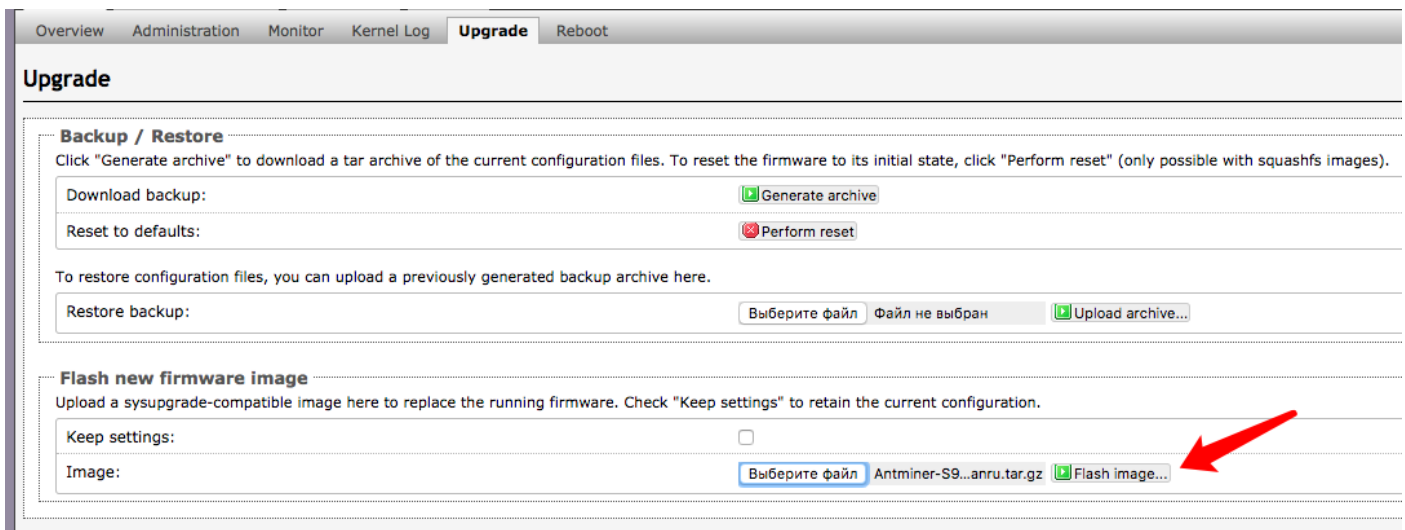## 4.1 First go to admin panel -> SYSTEM -> UPGRADE

4.2 Uncheck "Keep Settings" (remove the mark), and click "Select file"
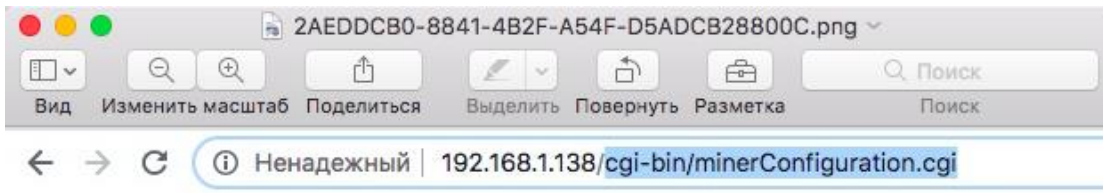
4.3 Locate and select the firmware installation file on your hard drive

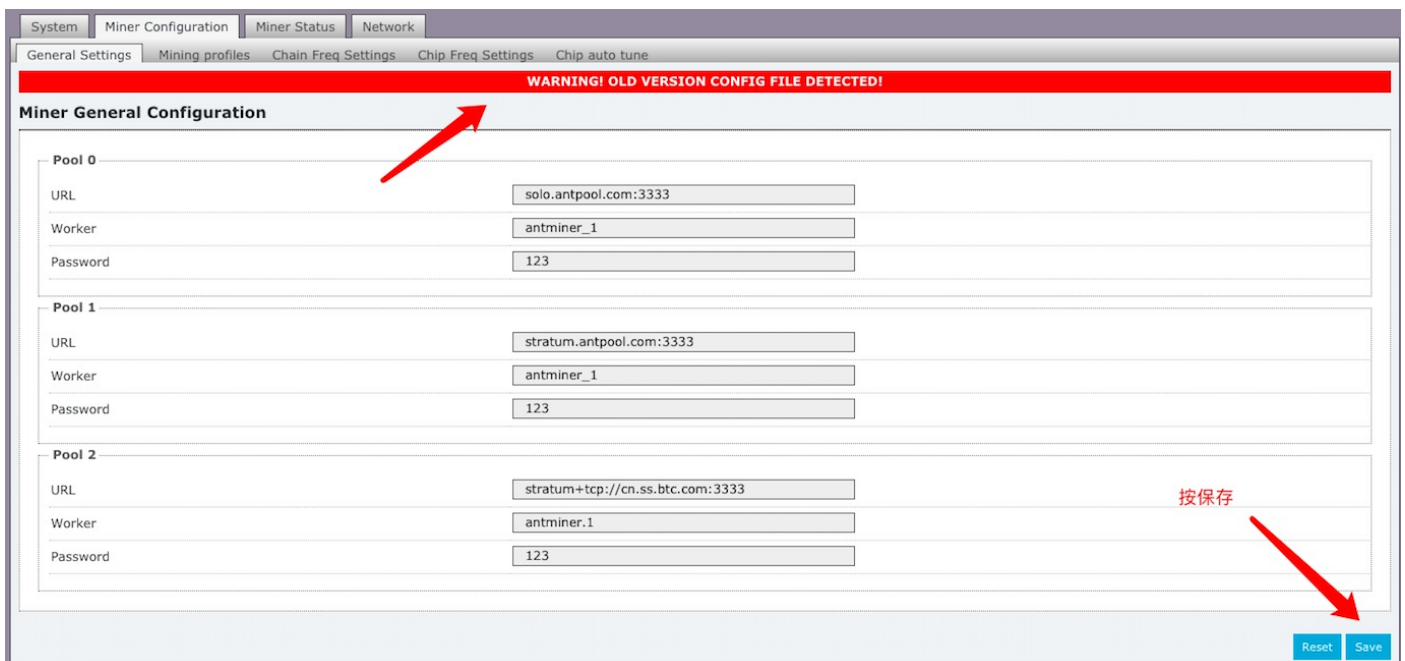

4.4 Press "Flash Image" and wait for about 120 seconds

4.5 If you experience the 404 error during firmware upload, plese clear the URL (leave ip address only) and hit CTRL-F5 or ENTER to reload page
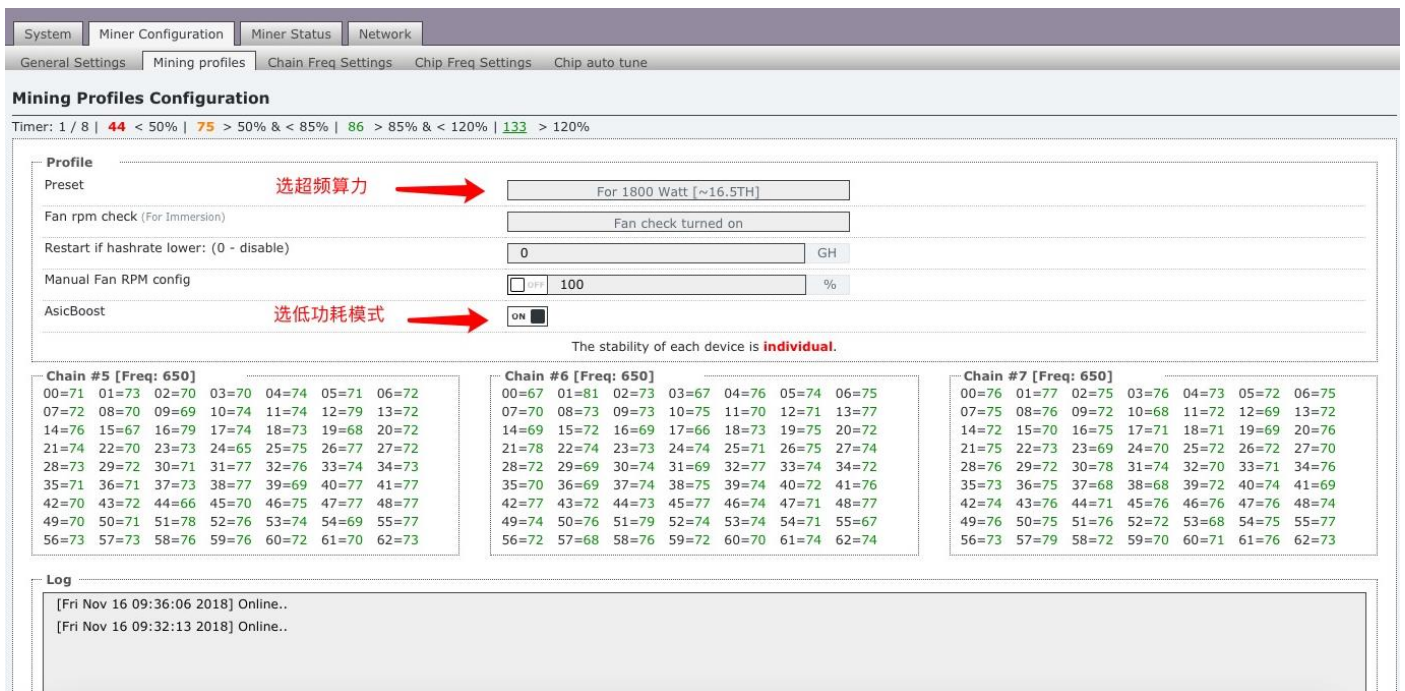

4.6 After firmware is loaded go to "Miner Configuration" and click "Save" to save the update you have just made to your miner

4.7 In the "Miner Profiles" section of "Miner Configuration" you can now setup or adjust your ASIC's acceleration level and apply other settings you need. "Preset" line sets up the level of overclocking - just turn on "ASICBoost" option to apply low level power consumption settings and click "Save"

IMPORTANT NOTE #1: After applying your settings the ASIC needs about 1.5 hours to fine tune chips for their optimal performance. During those 1.5 hours ASIC might reboot from time to time - this is naturally normal.

   NOTE #1A: If chips tune takes too long time or appear some errors please try to power off your ASIC and power it on in a few minutes — a solution that works 90% of the time. Still does not work? - Get down your frequency a bit.

IMPORTANT NOTE #2: If you overlock up to 18-20 TH make sure you get a more powerfull power unit (2000W-2500W). And a sufficient enough cooling.

4.8 After choosing and saving profile go to Chip Autotune panel and be sure that tuner configuration also saved and should be like on a picture: