

(Review/Guide) Ebit E9 Plus 9.0 Th/s, 1300W Bitcoin (SHA-256) ASIC miner

Author:

Matti Hakola

Bitcointalk.org username: HagssFIN

Date:

February 17, 2018.

The most up-to-date version of this review/guide is available at Bitcointalk.org forum:

<https://bitcointalk.org/index.php?topic=2638479>

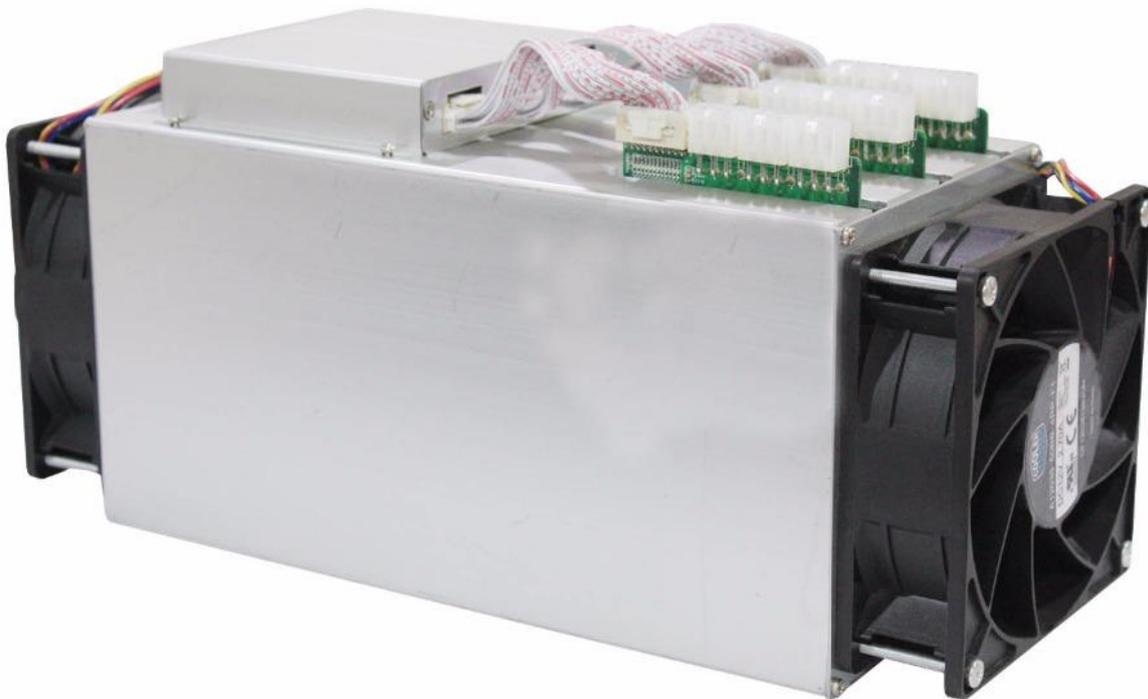


Figure 1 Ebit E9 Plus. Picture copyright (c) Ebang Communication.

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1. General information, other items needed

Ebit E9 Plus is a Bitcoin (SHA-256) ASIC miner using 14nm ASIC chip technology, manufactured by Zhejiang Ebang Communication Co., Ltd (headquarters in Hangzhou, China).

Ebit E9 Plus is a standalone miner with a built-in controller and you don't need a separate controller, like Raspberry Pi for example to run it.

The miner weights 4.7 kg and outer dimensions are 290mm (L) x 126mm (W) x 155mm (H).
The advertised nominal hashrate is 9.0 Th/s with a nominal power consumption of 1305 Watts (advertised as 145W per Th/s at the Ebit E9 Plus product page).

Ebang Communication: <http://miner.ebang.com.cn/>

```
Ebit E9 Plus
Hash rate: 9.0 Th/s
Power consumption: 1305W (-10%~+15%, AC/DC 93% efficiency, 25°C ambient temperature)
Power efficiency: 0.145 J / Gh/s (-10%~+15%, AC/DC 93%efficiency, 25°C ambient temperature)
DC voltage input: 12 VDC
ASIC chip type: DW1227 (14nm SHA-256 ASIC chip)
ASIC chip quantity per unit (miner): 132 chips
Number of hash boards per unit: 3 hash boards
Cooling: 2x 120mm x 38mm 12VDC 2.7A fan; manufacturer & model: Cooler Master A12038-60BB-4RP-F1
Weight: 4.7 kg (front and back, in a push-pull configuration).
Dimensions: 290mm (L) x 126mm (W) x 155mm (H)
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Figure 2 Technical specifications.

Other items needed:

- A server grade power supply with at least 10x PCI-E 6-pin connectors, everyone with a dedicated cable, at least 18AWG wires.
I used the APW3++ 1600W power supply (manufacturer: Bitmain) to power my miner.
I recommend a 1600W power capacity server psu or customs psu for this miner.
Ebang Communication also has their own custom psu available for sale at their webshop.
- C13 power cord suitable to your country's electrical socket
- Ethernet cable to go from the controller to your router/switch.
- Computer to set initial pool and configuration settings.

2. Unpacking

The miner was packed well in a sturdy protecting foam and inside a plastic bag

This is pretty much a market standard solution today, and offers a very good possibility for the hardware to ship safe and sound to the destination address.



Figure 3 Packaging material.

3. Overview

In these following pictures you can have a close look at the miner.

You can click these pictures individually to show a high resolution version of the picture located in a [Imgur.com](#) picture album.



Figure 4 Ebit E9 Plus picture set 1.



Figure 5 Ebit E9 Plus picture set 2.



Figure 6 Ebit E9 Plus picture set 3.

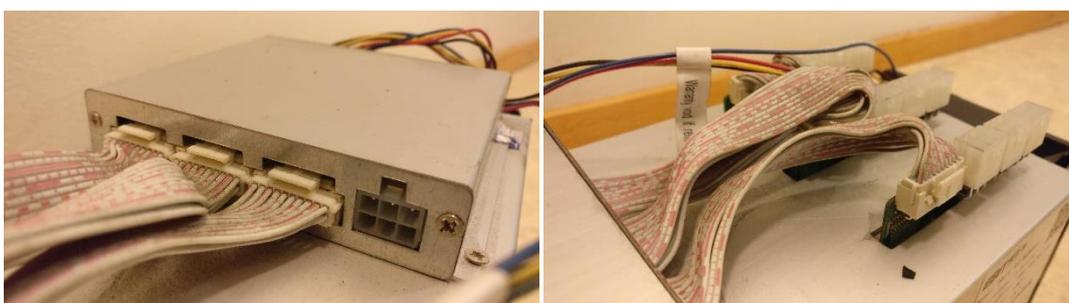


Figure 7 Ebit E9 Plus picture set 4.

4. Install

The installation was pretty much as it usually is with ASIC mining hardware.

You need to connect the Ethernet cable to your miner and the other end to the router or switch device.

And then you need a high power server grade power supply.

Install all ten pieces PCI-E 6-pin power cables to the power headers found at the top side of the miner.

One for the controller and nine pieces for hash boards.

I personally found the easiest way to find out the miner ip address was to install their tool called "EbiteMinerMini".

It should show you the Ebit miner ip address even if it would end up in a different subnet than your computer and other devices.

Download link for the tool is available at their website **Support** section <http://miner.ebang.com.cn/>

When you download it and open the archive, you're gonna notice there are three files.

Install the latest version of .NET Framework from Microsoft website or use the one included in this archive.

Install the WinPcap software. It is a library used to capture live network data on Windows.

Then extract the .7z archive. There is no need to run installation wizard, you can use the EbiteMinerMini tool right away.

Now this next part was a bit tricky. The default language was Chinese, but as I can't speak any Chinese I of course started to look if I can change it to English.

I was able to do this by going into a folder called '**language**'.

Then enter into the '**en**' folder.

Then I moved the '**StringResource.xml**' file to the main folder location, where also the '**EbiteMinerMini.exe**' file is located.

After that the tool started with a English GUI.

Knowing the miner IP address makes the next miner configuration part possible, so you can find the web configuration page.

You can also do the whole setup process with the EbiteMinerMini tool if you want to.

Network settings configuration, pool settings configuration, fan settings, frequency settings, miner statistics etc. are available.

5. Configuration

First you need to go the miner IP address with your web browser.

Then you login to the configuration page.

Username is **admin** and the password is **admin** by default.

Before logging in, you can choose the graphic user interface language (Chinese or English).

You can click these pictures invidually to show a high resolution version of the picture located in a Imgur.com picture album.



Figure 8 Login screen and choosing the graphic user interface language.

Now it is time to setup mining pool settings.

Click '**Cgminer**' and then go to '**Config**'.

You can put the pool address, username and password for three pools in a priority order from 1 to 3.

After you have ready with the settings, press '**Set**'.

Then you also have to click '**Miner Effect**'.

This applies the settings and also reboots the miner.

You won't be able to access the web configuration page until the miner has rebooted itself.



Figure 9 Cgminer configuration page.

6. Testing

After all the settings were made properly, it was time to test and see how it starts running.

The hash board frequency setting was the default value **750 MHz**.

The hash rate was around 9.1 - 9.2 Th/s area, so the hash rate was just as advertised.

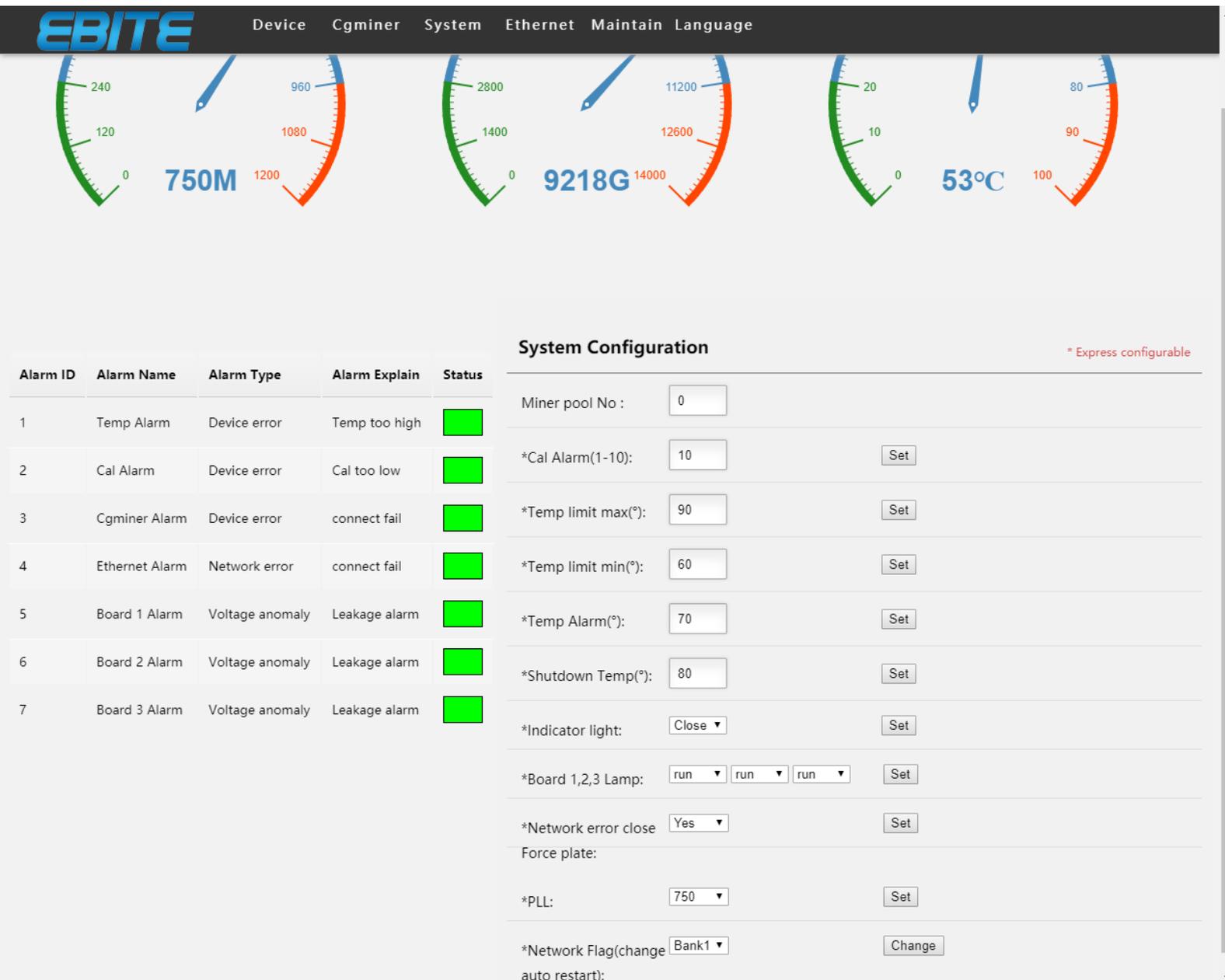


Figure 10 Miner status page.

7. Power consumption measurement

The power measurement was done with **Perel E305EM6-G** energy meter.

Technical specs data sheet (.pdf document):

<https://www.perel.eu/downloads/22/e305em6e305em6ggbnlfresdptpl.pdf>

You can click these pictures individually to show a high resolution version of the picture located in a [Imgur.com](#) picture album.



Figure 11 Perel E305EM6-G.



Figure 12 Power measurement.

Stable result for the power consumption (at wall) was 1442 W, when the hash rate was around 9.1 - 9.2 Th/s.

The power supply used in this power consumption test was: Bitmain APW3++ 1600W power supply.

8. Conclusion

Ebit E9 Plus is another competitor to the Bitcoin mining hardware market, to challenge Bitmain's monopoly position.

The power efficiency is slightly worse than the S9, but the Ebit E9 Plus miner is about in the same power efficiency category as the AvalonMiner 741 miner.

The miner performed just as advertised, I got 9.1 - 9.2 Th/s hash rate and the advertised nominal rate is 9.0 Th/s.

All in all, this might not be the easiest miner to do the configuration for, but once you get to know how things work it is pretty straight forward. I would recommend having a advanced knowledge on the Bitcoin mining hardware before buying this device.

Cooling design is done very well and the miner didn't get too warm, reaching about 50°C region at max. This is a very loud miner as most of the modern industrial gradeASIC miners are, you don't want this in your apartment without a soundproof cabinet solution.

I like that there is competition in the Bitcoin ASIC miner market and it was nice to have one new miner again to have a look at.

If you got any questions, feel free to drop them in the Bitcointalk forum thread. I will try to give my best answer.

9. How to order

You can make the order by visiting their webshop online at their website.
See more details at the website.

Ebang Communication:

<http://miner.ebang.com.cn/>