BITMAIN S9 AntMiner Bitcoin Miner Installation Guide

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BITMAIN S9 AntMiner Bitcoin Miner

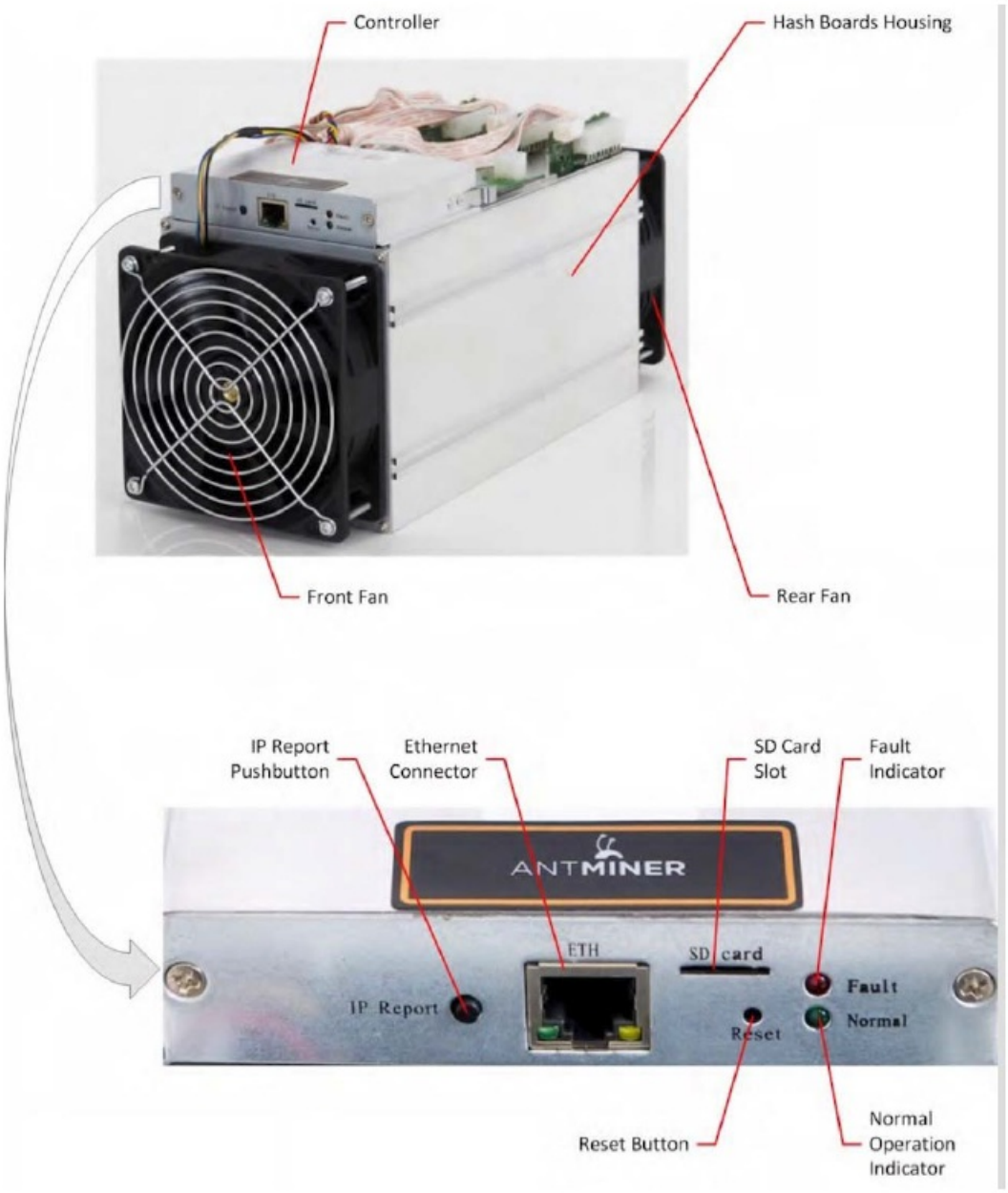
Overview

The S9 server is Bitmain’s newest version in the S9 server series. It boasts a state-of-the-art BM1387 custom-made chip using 16nm technology. All S9 servers are tested and configured prior to shipping to ensure easy set up.

You must provide your own ATX power supply.

S9 Server Components

The S9 Server main components and controller front panel are shown in the following figure:



Specifications

Feature	Description			
Hash Rate	12± 5%Th/s	12.5± 5%Th/s	13± 5%Th/s	13.5± 5%Th/s
Estimated wall outlet power consumption (with APW3, 93% efficiency, 25°C ambient temperature)	1176W+10%	1225W+10%	1274W+10%	1323W+10%
Rated voltage	11.60~13.00V			
Estimated wall outlet power efficiency (with APW3, 93% efficiency, 25°C ambient temperature)	0098J/GH+10%			
Dimensions (L x W x H)	350mm x 135mm x 158mm			
Net weight	4.2kg			
Operating ambient temperature	0- 40°C			

The server does not contain a DC/DC converter; therefore, higher input voltage will cause higher Mining efficiency .

2. Connecting the Power Supply

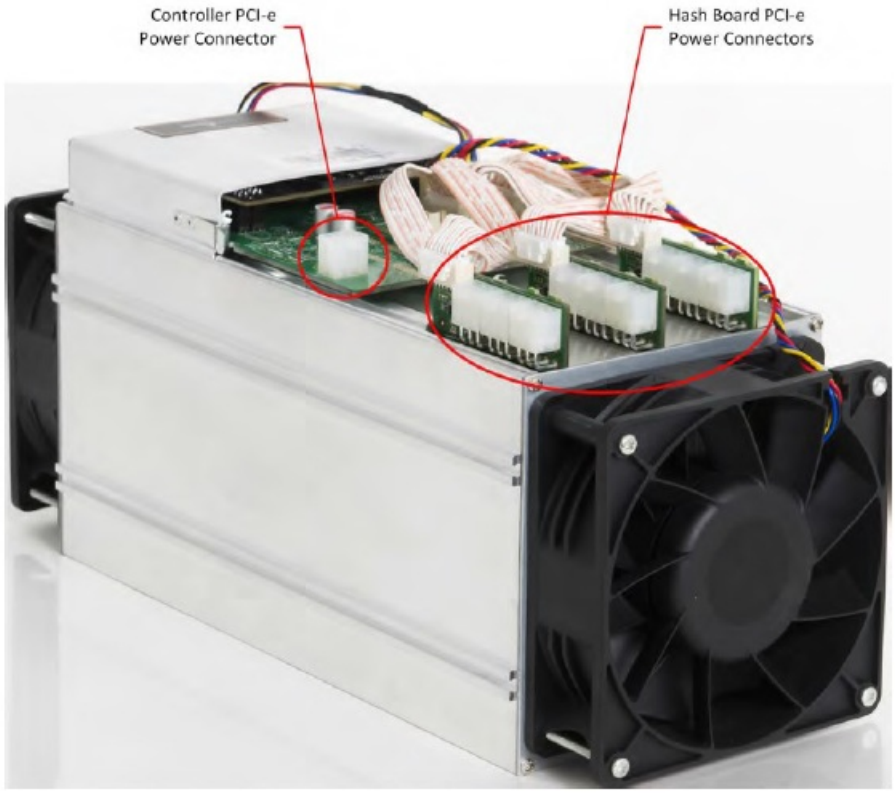
Ten PCI-e connectors are located at the top of the S9 server for connecting the PSU as follows:

- Nine PCI-e connectors for the hash boards. Each hash board has a set of three PCI-e connectors.
- One PCI-e connector located on the controller.

Each hashboard must be powered by the same PSU to prevent possible damage and instability.

To connect the power supply:

1. Connect PSU power cable connectors to each of the nine PCI-e connectors onthetopofthe S9 server,ensuring that each hash board is powered by the same PSU.



2. Connect a PSU power cable connector to the S9 PCI-e connector on the controller.
3. Connect the network cable to the ETH port.
4. To power up your S9 server, connect the PSUs to the power wall outlet.

If you are using more than one PSU,power up the PSU connected to the controller AFTER you have Powered up the other PSU(s).

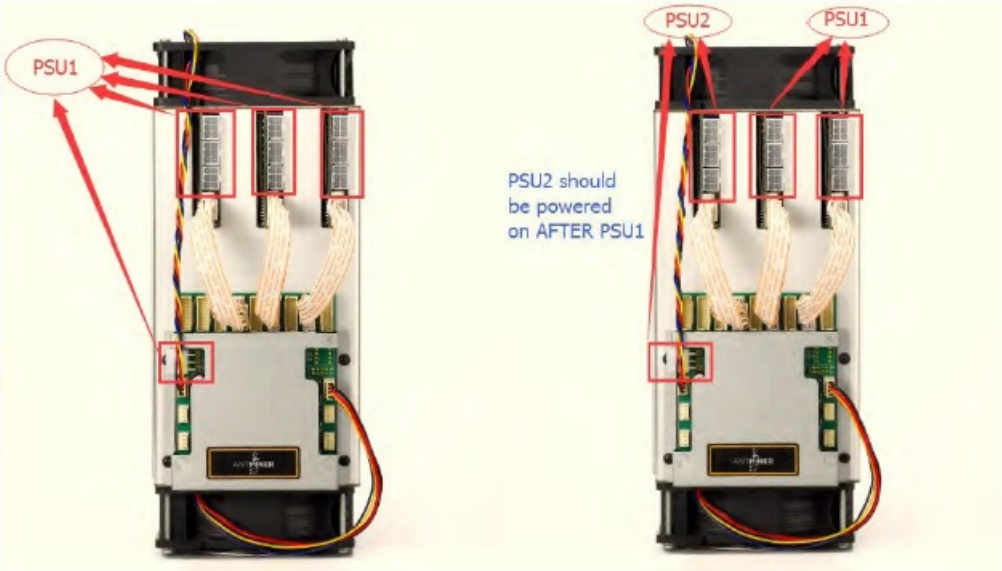


Figure 2-1. PCI-E Connectors - Correct Connection

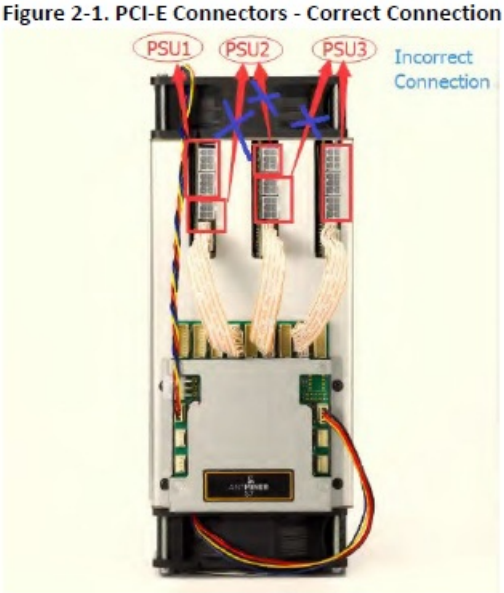


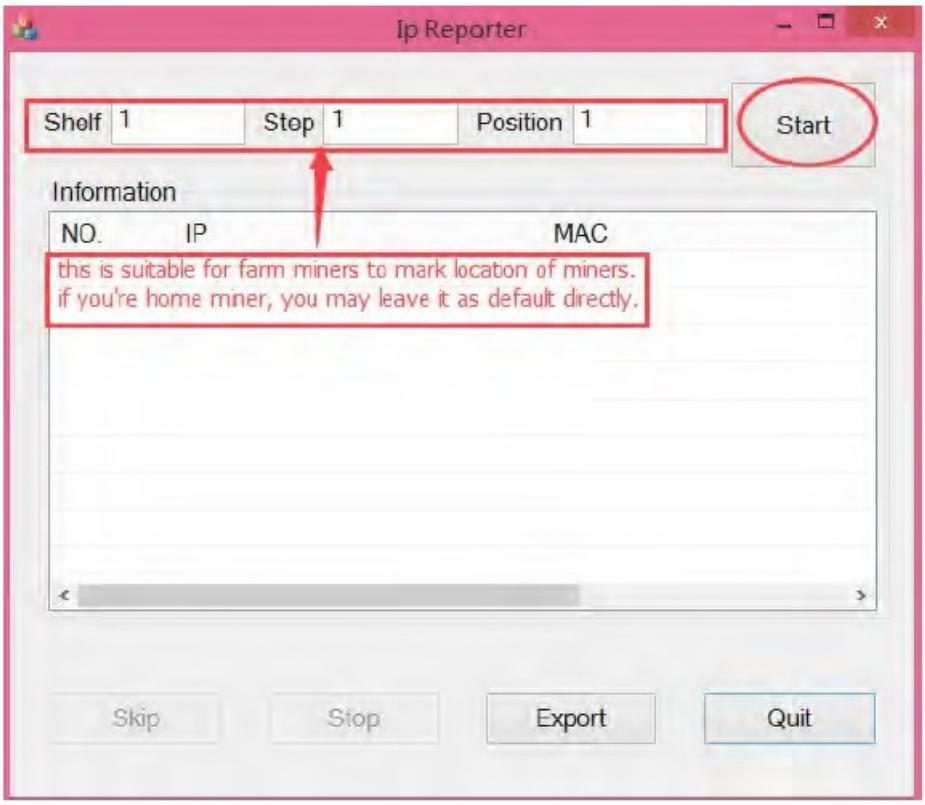
Figure 2-2. PCI-E Connectors - Incorrect Connection

Setting Up the Server

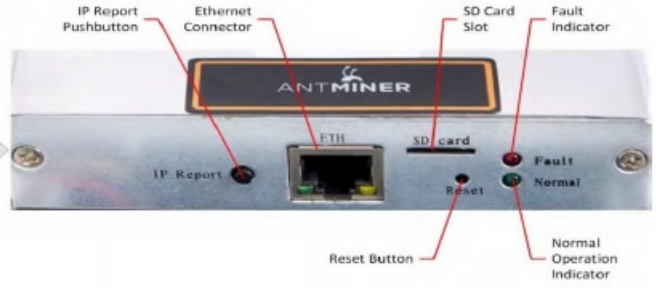
To set up the server:

The file IP Reporter.zip is supported by Microsoft Windows only.

1. Go to the following site: https://shop.bitmain.com/support.htm?pid=00720160906053730999PVD2K0vz0693
2. Download the following file: IPReporter.zip
3. Extract the file. The default DHCP network protocol distributes IP addresses automatically.
4. Right-click IPReporter.exe and run it as Administrator.
5. Select one of the following options:
   - Shelf, Step, Position – suitable for farm servers to mark the location of theservers.
   - Default – suitable for home servers.
6. Click Start.

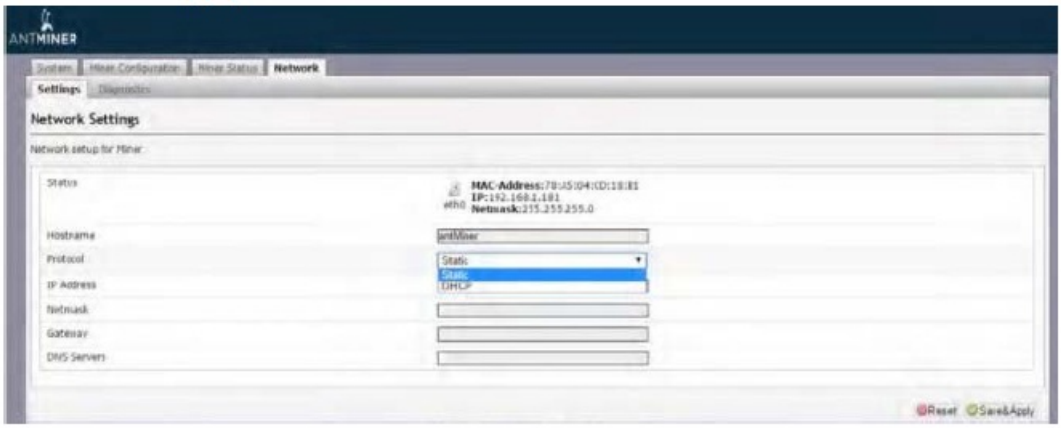


7. On the controller board, click the IP Report button. Hold it down until it beeps (about 5 seconds).



The IP address will be displayed in a window on your computer screen.

8. In your web browser, enter the IP address provided.
9. Proceed to login using root for both the username and password.
10. In the Network section, you can assign a Static IP address (optional).
11. Click Save & Apply.



4. Configuring the Server

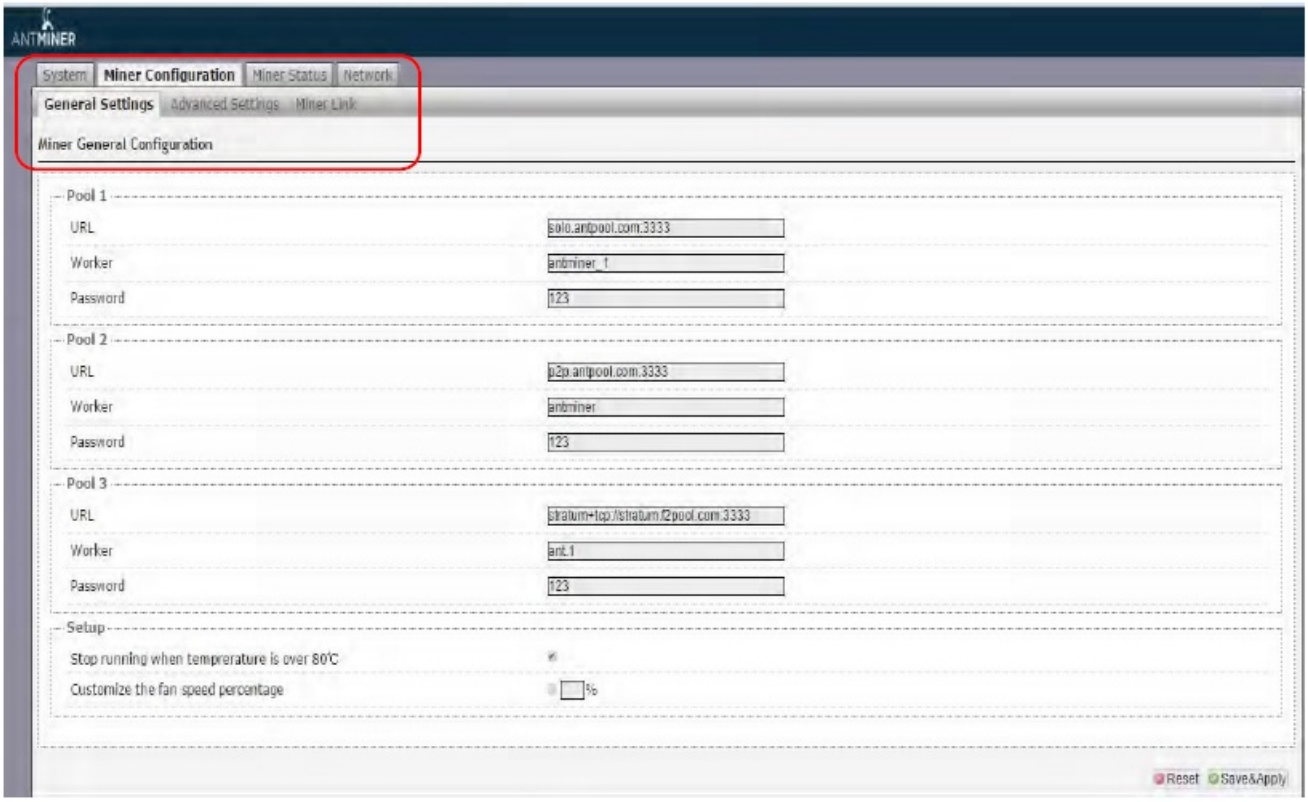
Setting Up the Pool

To configure the server:

1. Click General Settings.
2. Set the options according to the following table:

Option	Description
Pool URL	Enter the URL of your desired pool. The S9 server can be set up with three mining pools, with decreasing priority from the first pool (pool 1) to the third pool (pool 3). The pools with low priority will only be used if all higher priority pools are offline.
Worker	Your worker ID on the selected pool.
Password	The password for your selected worker.

3. Click Save & Apply to save and restart the server.

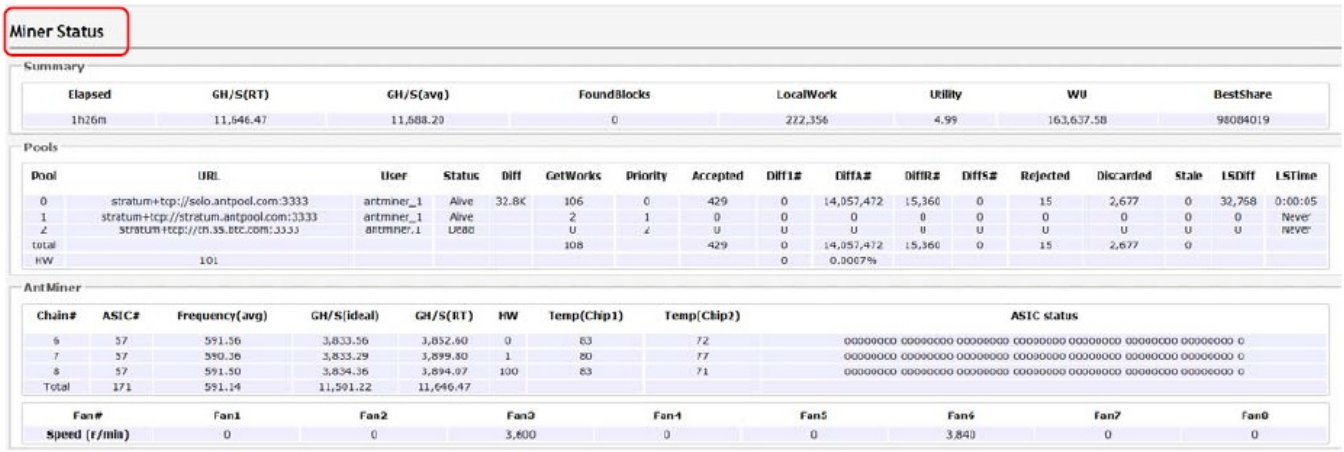


Monitoring Your Server

To check the operating status of your server:

1. Click the status marked below.
2. Monitor your server according to the descriptions in the following table:

Option	Description
ASIC#	Number of chips detected in the chain.
Frequency	ASIC frequency setting.
GH/S(RT)	Hash rate of each hash board (GH/s)
Temp(PCB)	Temperature of each hash board (°C).(Applied only to server with fixed frequency)
Temp(Chip)	Temperature of the chips on each hash board (°C).
ASIC status	One of the following statuses will appear: ● **O** - indicates OK ● **X** - indicates error ● **-** - indicates dead



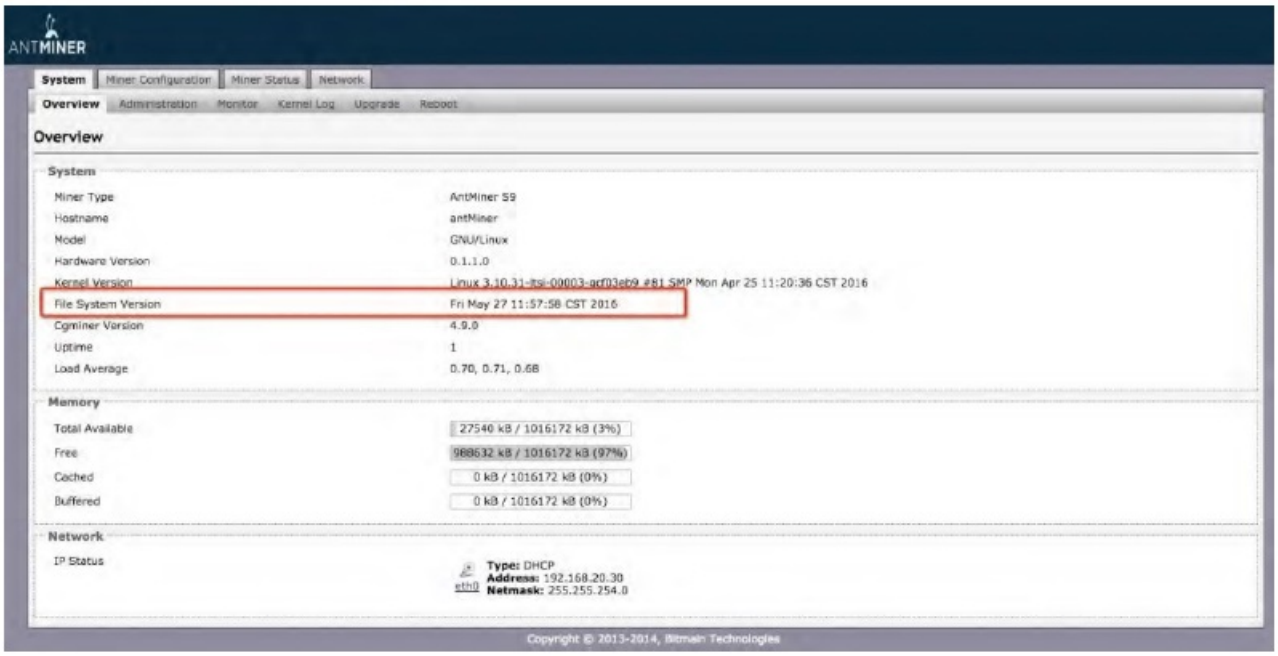
Note: The S9 server is with automatic frequency adjustment. Firmware will stop running when t he Temp(chips) reaches to 125-135 ·c , there will be an error message “Fatal Error: Temperature is too high!” shown in the bottom of kernel log page.

Administering Your Server

6.1 Checking Your Firmware Version

To check your firmware version:

1. In System, click the Overview tab.
2. File System Version displays the date of the firmware your server use. In the example below, the server is using firmware version 20170108.



6.2 Upgrading Your System

Make sure that the S9 server remains powered during the upgrade process. If power fails before the upgrade is completed, you will need to return it to Bitmain for repair.

To upgrade the server’s firmware:

In System, click Upgrade.

Regulation:

FCC Notice (FOR FCC CERTIFIED MODELS):

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

EU WEEE: Disposal of Waste Equipment by Users in Private Household in the European Union

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handling it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where your purchased the product.

Documents / Resources

	BITMAIN S9 AntMiner Bitcoin Miner [pdf] Installation Guide S9, AntMiner Bitcoin Miner, S9 AntMiner Bitcoin Miner

References

- BITMAIN

- BITMAIN