



Z9 mini Server Installation Guide

Document Version 0.1

June 2018

© Copyright Bitmain Technologies Holding Company 2007 – 2022. All rights reserved.

Bitmain Cayman (hereinafter referred to as 'Bitmain') reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any product or service without notice.

Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All products are sold subject to Bitmain's terms and conditions of sale supplied at the time of order acknowledgment.

Bitmain warrants performance of its products to the specifications applicable at the time of sale in accordance with Bitmain's standard warranty. Testing and other quality control techniques are used to the extent Bitmain deems necessary to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

Bitmain assumes no liability for third-party applications assistance. Customers are responsible for their products and applications using Bitmain components. To minimize the risks associated with customer products and applications, customers should provide adequate design and operating safeguards.

Bitmain does not warrant or represent that any license, either express or implied, is granted under any Bitmain patent right, copyright or other Bitmain intellectual property right relating to any combination, machine, or process in which Bitmain products or services are used. Information published by Bitmain regarding third-party products or services does not constitute a license from Bitmain to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from Bitmain under the patents or other intellectual property of Bitmain.

Resale of Bitmain products or services with statements different from or beyond the parameters stated by Bitmain for that product or service voids all express and any implied warranties for the associated Bitmain product or service and is an unfair and deceptive business practice. Bitmain is not responsible or liable for any such statements.

All company and brand products and service names are trademarks or registered trademarks of their respective holders.

All text and figures included in this publication are the exclusive property of Bitmain, and may not be copied, reproduced, or used in any way without the express written permission of Bitmain. Information in this document is subject to change without notice and does not represent a commitment on the part of Bitmain. Although the information in this document has been carefully reviewed, Bitmain does not warrant it to be free of errors or omissions. Bitmain reserves the right to make corrections, updates, revisions or changes to the information in this document.

Bitmain

Tel: +86-400-890-8855

www.bitmain.com

Table of Contents

1. Overview	4
1.1 Z9 mini Server Components	5
1.2 Specifications	6
2. Connecting the Power Supply	7
3. Setting Up the Server	8
4. Configuring the Server	10
5 .Monitoring Your Server	11
6 .Administering Your Server	12
6.1 Checking Your Firmware Version	12
6.2 Upgrading Your System	12
6.3 Modifying Your Pass word	13
6.4 Restoring Initial Settings	13

1. Overview

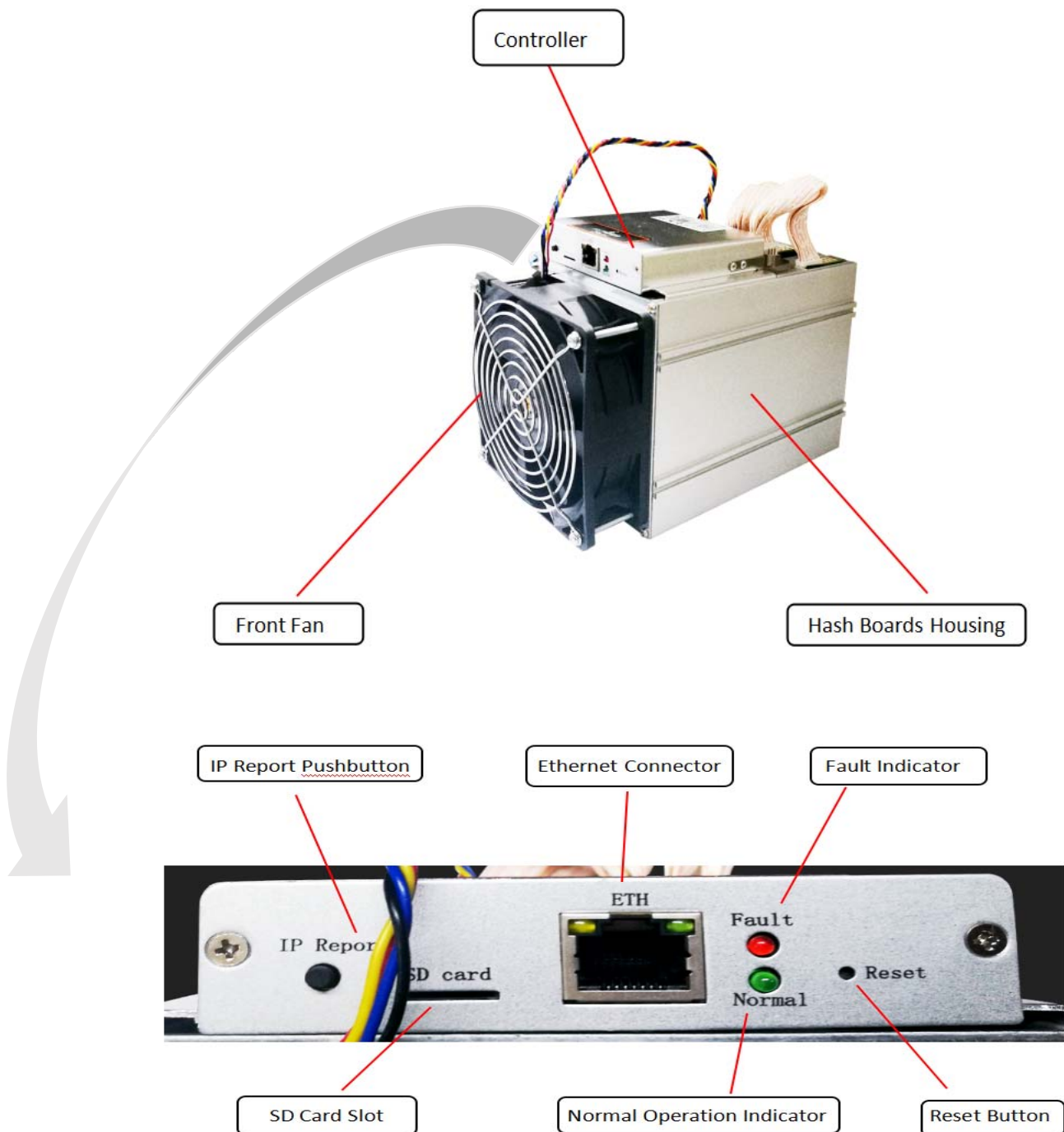
The Z9 mini server is Bitmain's newest version in the Z9 mini series. All Z9 mini servers are tested and configured prior to shipping to ensure easy set up.



You must provide your own ATX power supply.

1.1 Z9 mini Server Components

The Z9 mini server main components and controller front panel are shown in the following figure:



1.2 Specifications

Parameters of Z9 mini Server		
NO.	Parameters	Value
1	Product model	Z9 mini
2	Quantity of hash chips per server	12 PCS
3	Total quantity of hash boards	3 PCS
4	Total hash rate	10.0k Sol/s±5%
5	DC voltage input	11.60~13.00 V
6	DC current input @12V DC input @25℃	20.6 A +5%
7	DC Power @12V DC input @25℃	247 W +5%
8	220VAC Power @25℃ ,93% conversion efficiency of APW3	266 W +5%
9	220VAC Power efficiency @25℃ ,93% conversion efficiency of APW3++	26.6J/Ksol±5%
10	Weight (without package)	2.02kg
11	Operation temperature	0-40 ℃
12	Storage temperature	-40-85 ℃
13	Operation humidity	5%RH-95%RH, prevent condensation
14	Noise@25℃	55dB
15	Networking connection mode	Ethernet Cable
16	Power connection mode	All PCI-E ports are required to power the board. You can use one PSU to power multiple boards. All cables must be connected before powering up the PSU.
17	Size (Length*Width*Hight)	206x124x155mm

2. Connecting the Power Supply

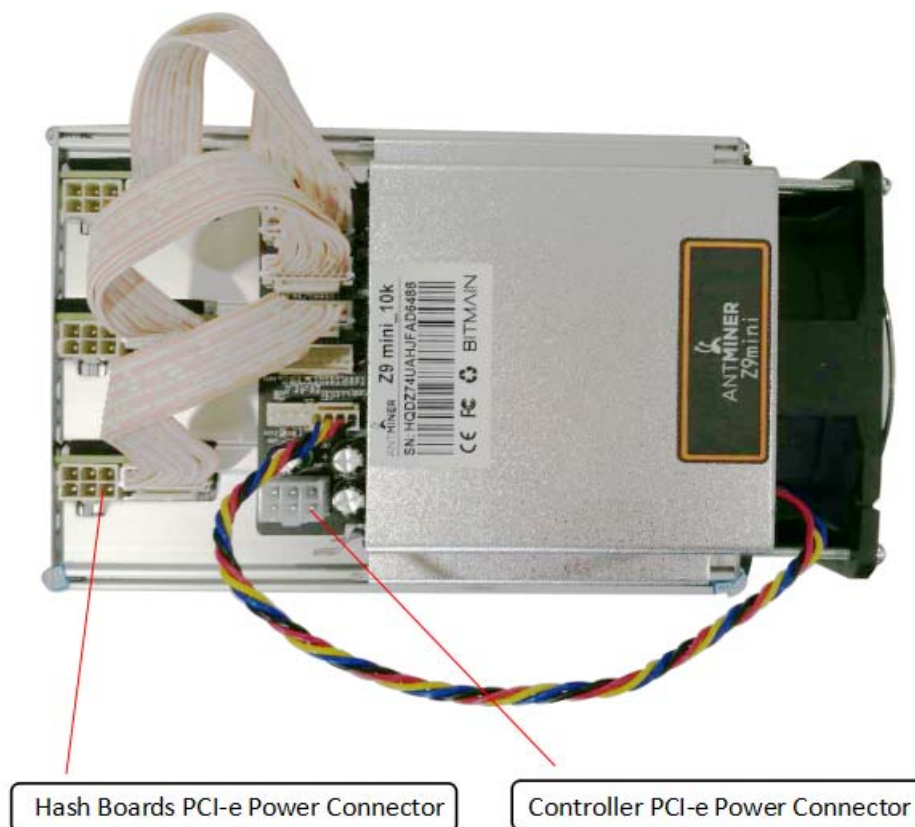
2. Connecting the Power Supply

Four PCI-e connectors are located at the top of the Z9 mini server for connecting the PSU as follows:

- Three PCI-e connectors for the hash boards. Each hash board has one PCI-e connector.
- One PCI-e connector located on the controller.

To connect the power supply:

1. Connect PSU power cable connectors to each of the three PCI-e connectors on the top of the Z9 mini server.



2. Connect a PSU power cable connector to the Z9 mini PCI-e connector on the controller.
3. Connect the network cable to the ETH port.
4. To power up your Z9 mini 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).

3. Setting Up the Server

To set up the server:



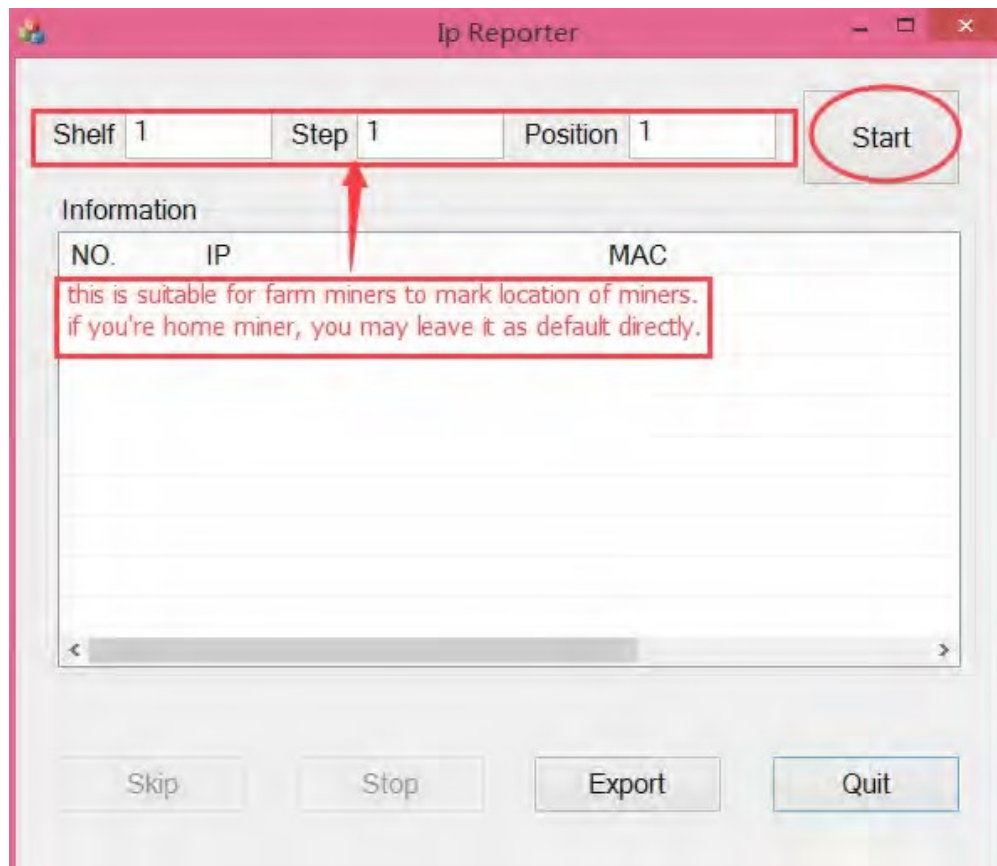
The file IPReporter.zip is supported by Microsoft Windows only.

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 the servers.
 - Default – suitable for home servers.
6. Click **Start**.



Shelf 1 Step 1 Position 1 Start

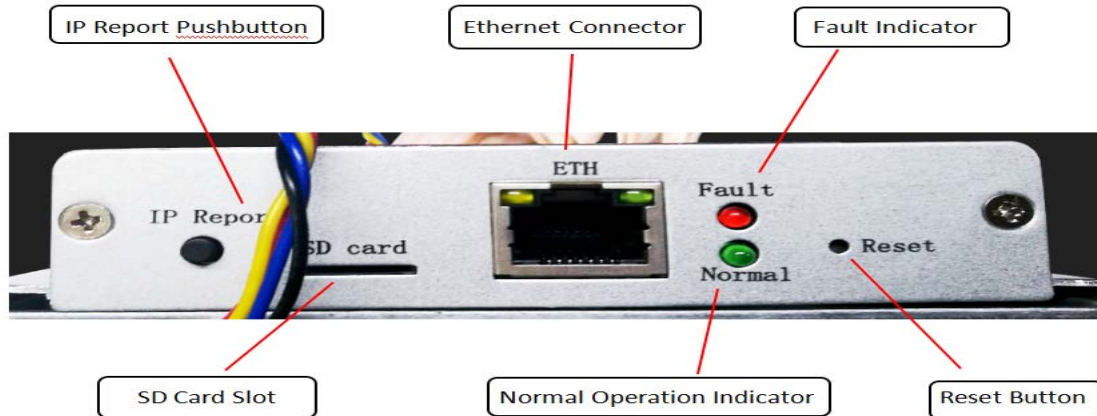
Information

NO.	IP	MAC
this is suitable for farm miners to mark location of miners. if you're home miner, you may leave it as default directly.		

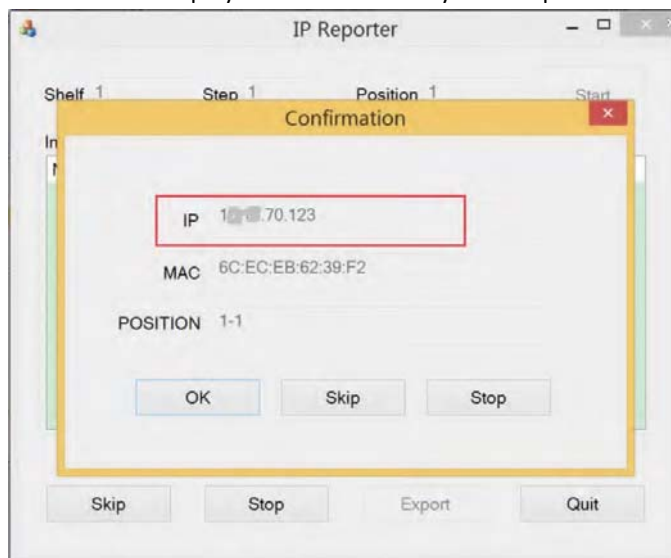
Skip Stop Export Quit

3. Setting Up the server

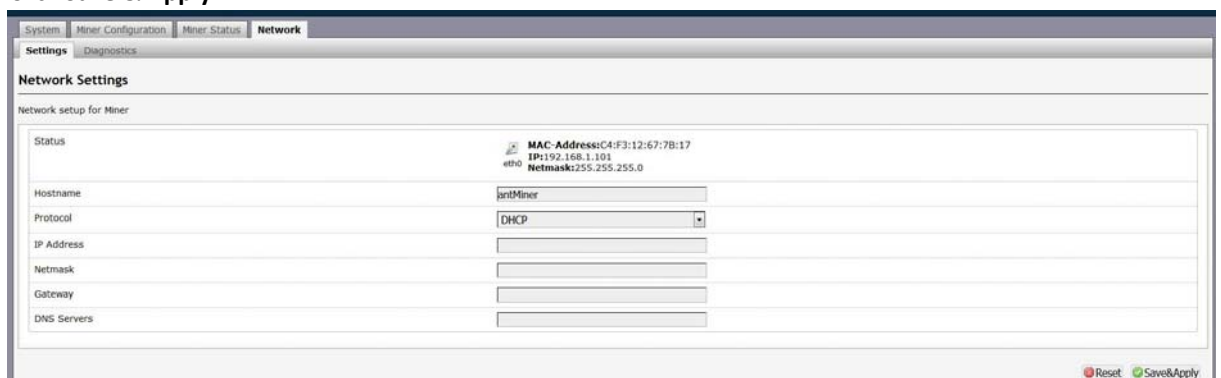
7. On the controller board, click the IP Report button. Hold it down until it beeps (about 5 seconds).



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 DHCP IP address (optional).
11. Click **Save & Apply**.



4. Configuring the Server

4. Configuring the Server

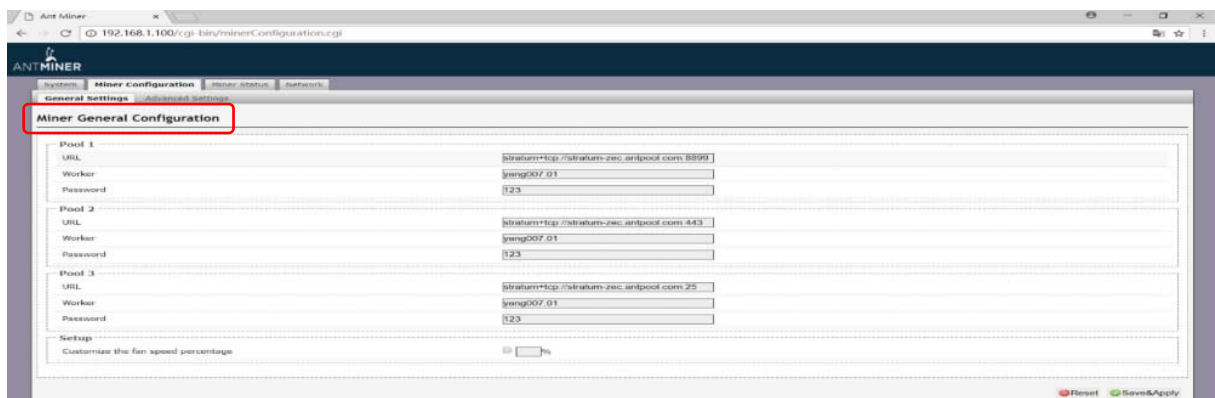
Setting Up the Pool

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 Z9 mini 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.



Note: Fan speed can be adjusted , but we recommend keeping the default setting.

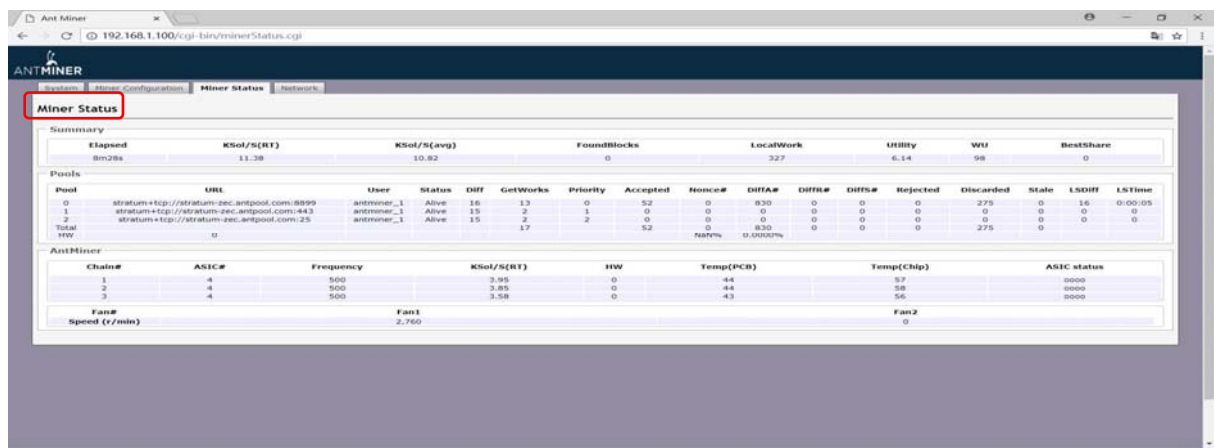
5. Monitoring Your Server

5. 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



Summary													
Elapsed	K/S(S/RT)	K/S(S/avg)	FoundBlocks	LocalWork	Utility	WU	BestShare						
8m28s	11.38	10.82	0	327	6.14	99	0						

Pool	URL	User	Status	Diff	GetWorks	Priority	Accepted	Nonce#	Diff#	Diff#	Diff#	Rejected	Discarded	State	LSDiff	LSTime
0	stratum+tcp://stratum-zec.antpool.com:8999	antminer_1	Alive	16	13	0	52	0	830	0	0	0	275	0	16	0:00:05
1	stratum+tcp://stratum-zec.antpool.com:443	antminer_1	Alive	15	2	1	0	0	0	0	0	0	0	0	0	0
2	stratum+tcp://stratum-zec.antpool.com:23	antminer_1	Alive	15	2	2	0	0	0	0	0	0	0	0	0	0
Total	0				17		52	0	830	0	0	0	275	0		
HW	0.0000%															

Chain#	ASIC#	Frequency	K/S(S/RT)	HW	Temp(PCB)	Temp(Chip)	ASIC status
1	4	500	3.95	0	44	57	0000
2	4	500	3.95	0	44	58	0000
3	4	500	3.58	0	43	56	0000

Fan#	Speed (r/min)
Fan1	2.760
Fan2	0



Note: The Z9 mini server is with fixed frequency 500 MHZ. Firmware will stop running when the Temp(PCB) reaches to 80 °C or the 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.

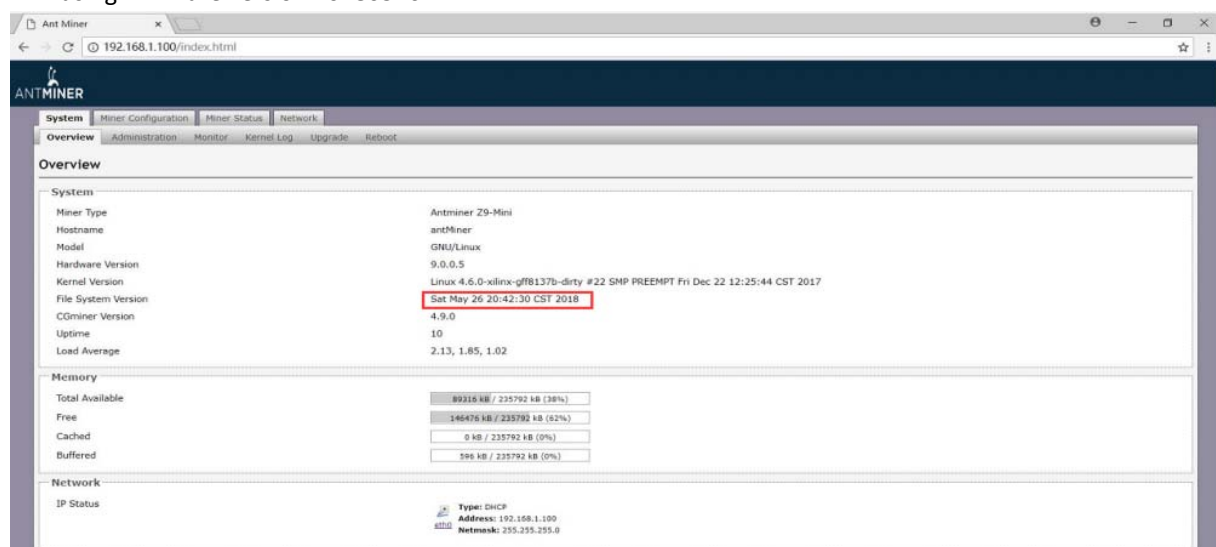
6. Administering Your Server

6. 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 20180526.



6.2 Upgrading Your System



Make sure that the Z9 mini 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.

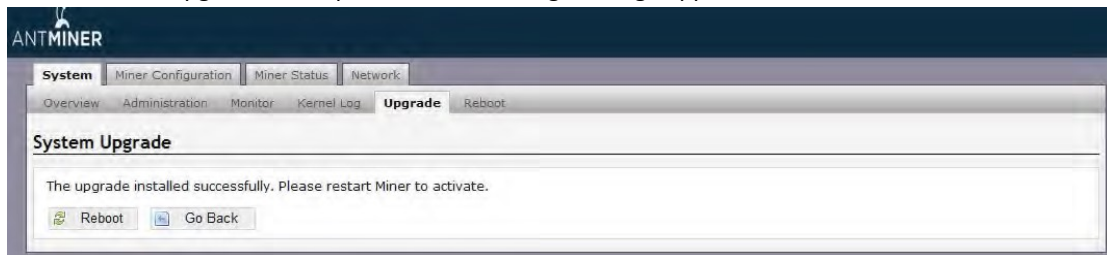
To upgrade the server's firmware:

1. In **System**, click **Upgrade**.



6. Administering Your Server

2. For **Keep Settings**:
 - Select the check box to keep your current settings (default).
 - Clear the check box to reset the server to default settings.
3. Click the **选择文件 (Browse)** button and navigate to the upgrade file. Select the upgrade file, then click **Flash image**. A message appears notifying you if the Z9 mini firmware can be upgraded and if yes, will then proceed to flash the image.
4. When the upgrade is completed, the following message appears:

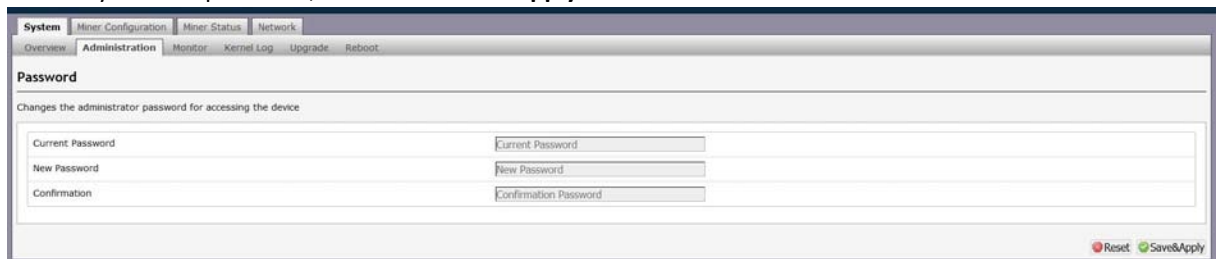


5. Click one of the following options:
 - **Reboot** - to restart the server with the new firmware.
 - **Go Back** - to continue mining with the current firmware. The server will load the new firmware next time it is restarted.

6.3 Modifying Your Password

To change your login password:

1. In **System**, click the **Administration** tab.
2. Set your new password, then click **Save & Apply**.



6.4 Restoring Initial Settings

To restore your initial settings

1. Turn on the server and let it run for 5 minutes.
2. On the controller front panel, press and hold the **Reset** button for 10 seconds.



Resetting your server will reboot it and restore its default settings. The red LED will automatically flash once every 15 seconds if the reset is operated successfully.

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 handing 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 you purchased the product.

台灣 ROHS:

設備名稱: , 型號:						
單元	有害物質					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr+6)	多溴聯苯 (PBB)	多溴二苯 醚 (PBDE)
外殼	○	○	○	○	○	○
電路板組 件	—	○	○	○	○	○
其他線材	—	○	○	○	○	○
備考 1. “超出 0.1 wt %” 及 “超出 0.01 wt %” 係指限用物質之百分比含量超出百分比含量基準值。 備考 2. “○” 係指該項限用物質之百分比含量未超出百分比含量基準值。 備考 3. “—” 係指該項限用物質為排除項目						