DR5 Server
Installation Guide

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Bitmaintech Pte.Ltd.
Tel:+86-400-890-8855
www.bitmain.com

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1. Overview

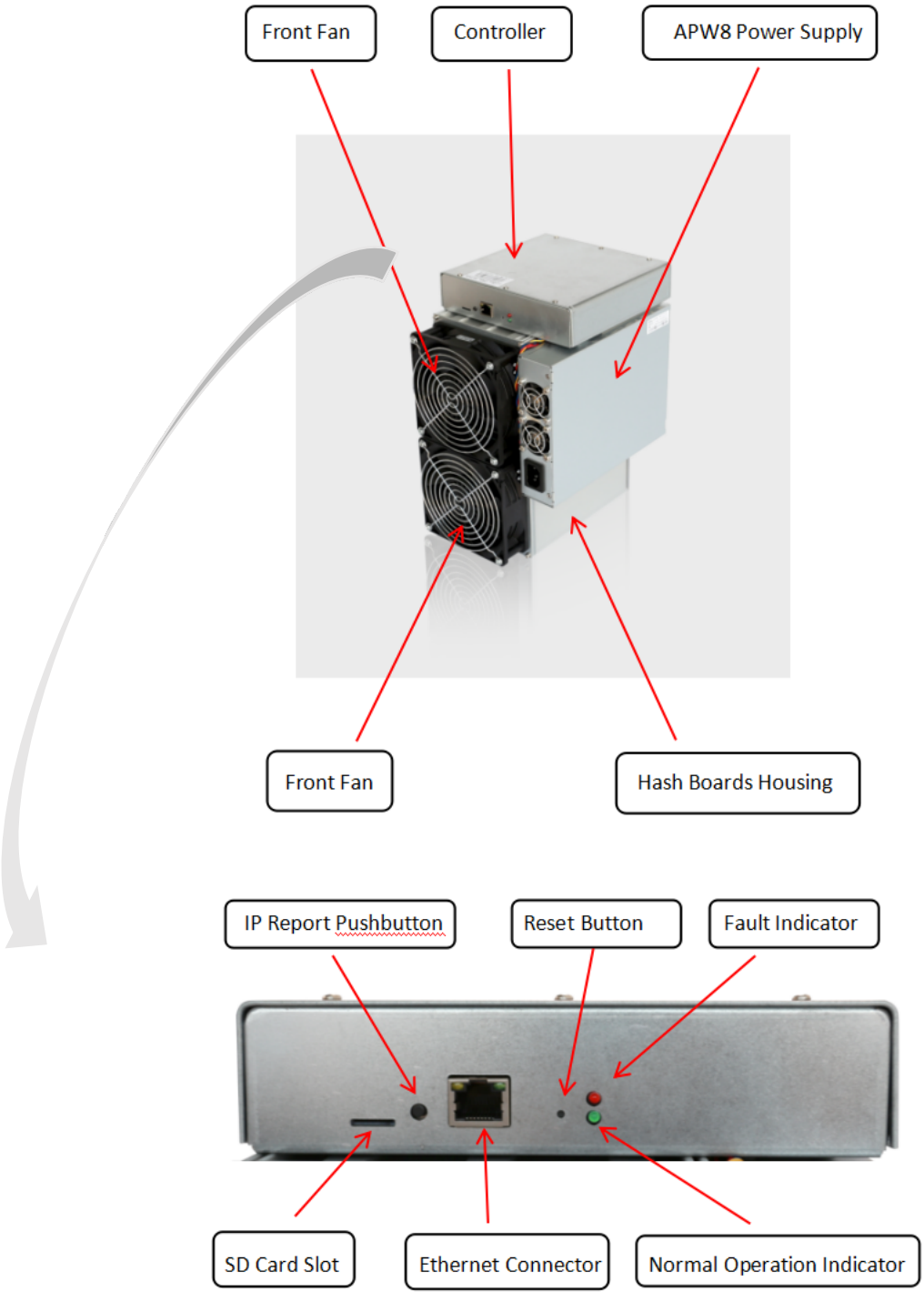
The DR5 server is Bitmain's newest version in the DR5 server series. Power supply APW8 is part of DR5 server. All DR5 servers are tested and configured prior to shipping to ensure easy set up.

Caution:

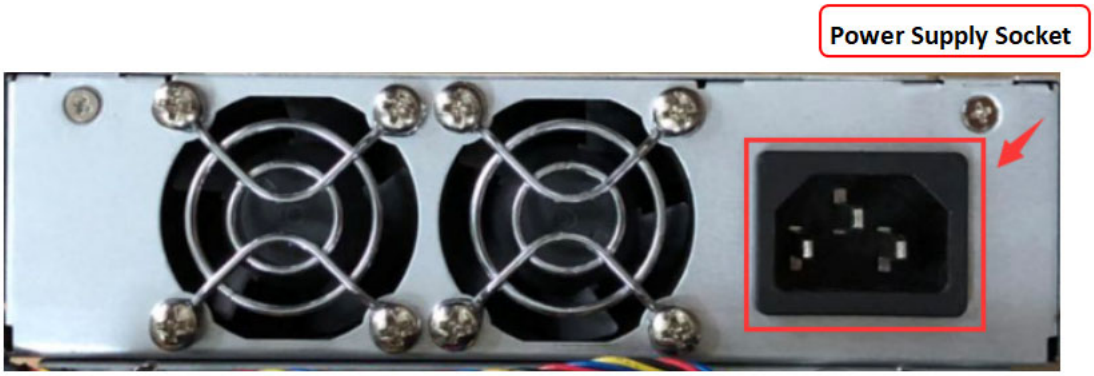
1. The socket-outlet shall be installed near the equipment and shall be easily accessible.
2. Please refer to the layout above to place your goods in usage in case of any damage.

1.1 DR5 Server Components

The main components and controller front panel of DR5 server are shown in the following figure:



APW8 Power Supply:



Note:

1.Power supply APW8 is part of DR5 server. For detailed parameters, please refer to the specifications below.

2. Additional power cord is needed.

1.2 Specifications

Model No.: 240-A
Version: DR5

Product Glance	Value	
	Normal	Low Power
Crypto Algorithm	Blake256R14	
Hashrate, **TH/s**	**35.00**	**25.00~26.00**
Reference power on wall, **Watt**	**1610**	**1000~1040**
Reference power efficiency on wall @**25°C**, **J/TH**	**46.00**	**40.00**

Detailed Characteristics		Value		
		Min	Typ	Max
Hashrate & Power				
Hashrate, **TH/s**	**Normal**		**35.00**	**35.95**
	Low Power		**25.00~26.00**	**+3% (1-1)**
Power efficiency on wall @**25°C**, **J/TH**	**Normal**	**46.00**		**49.22**
	Low Power	**40.00**		**42.80**
Power efficiency on wall @**40°C**, **J/TH**	**Normal**	**47.53**		**50.86**
	Low Power	**41.42**		**44.32**
Power on wall, **Watt (1-2)**	**Normal**	**1610**		**1828**
	Low Power	**1000**		**1187**
Power supply AC input voltage, **Volt (1-3)**		**200**	**220**	**240**
Power supply AC input current, **Amp(1-4)**	**Normal**		**7.32**	**9.14**
	Low Power		**4.55**	**5.94**
Power supply Input AC Frequency Range, **Hz**		**47**	**50**	**63**
Hardware Configuration				
Quantity of hash chips	**216**			
Quantity of hash boards	**3**			
Networking connection mode	**RJ45 Ethernet 10/100M**			

Server Size (Length*Width*Height, w/o package),**mm**[2-1]	**238*178*297**			
Net weight, **kg** [2-2]	**7.75**			
Noise, **dBA** @25**°C**[2-3]				**76**
Environmental Requirements				
Operation temperature,**°C**		**0**	**25**	**40**
Storage temperature,**°C**		**-40**	**25**	**85**
Operation humidity, **RH**(no condensation)		**5%**		**95%**

Notes:

(1-1) In Low Power Mode, Max Hashrate is about Typ hashrate *103%

(1-2) Min condition: 25°C, min J/TH, typical hashrate

Max condition: 40°C, max J/TH, max hashrate

(1-3) Caution: Wrong input voltage may probably cause server damaged

(1-4) Typ condition: min reference power, typical AC input voltage

Max condition: max reference power, min AC input voltage

(2-1) Including PSU size

(2-2) Including PSU weight

(2-3) Max condition: Fan is under max RPM(rotation per minute)

Specifications for APW8:

Input	Voltage Range	200-240V AC
	Frequency Range	50/60Hz
	Power Factor	>0.99
	Leakage Current	<2mA
	Overheat Protection	Yes
Environment	Operating Temperature	0℃-40℃
	Operating Humidity	5%RH-95%RH(non---condensing)
Cooling System	Fan	forced---air cooling

2. Setting Up the Server

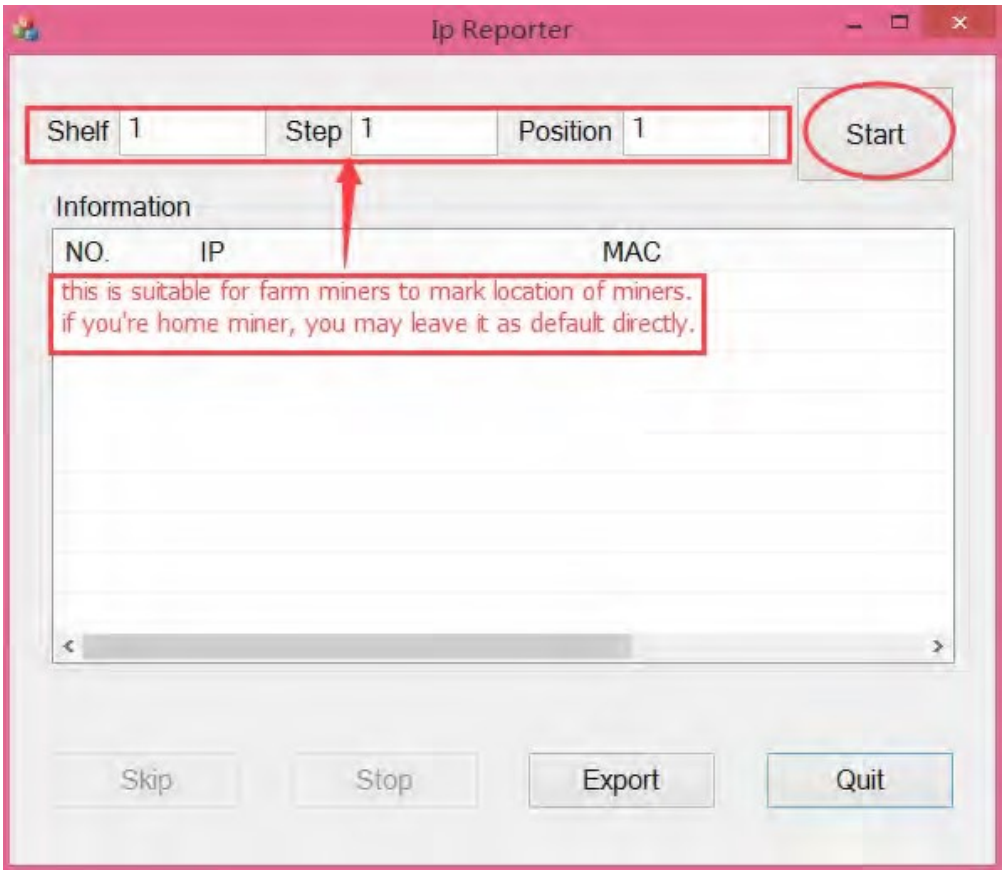
To set up the server:

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

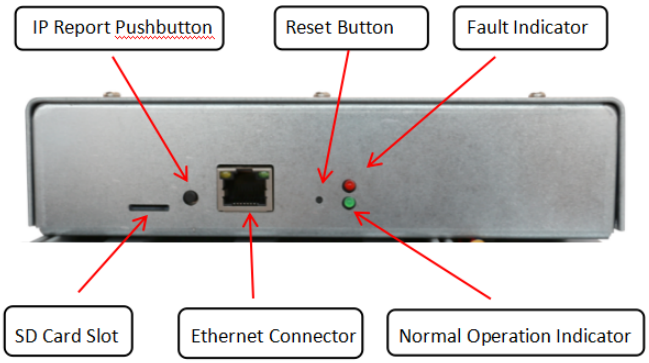
1. Go to the following site:
https://shop.bitmain.com/support.htm?pid=00720160906053730999PVD2K0vz0693
2. Download the following file: IPReporter.zip
3. Extract the file.

The default DHCP network protocol distributes IP addresses automatically.

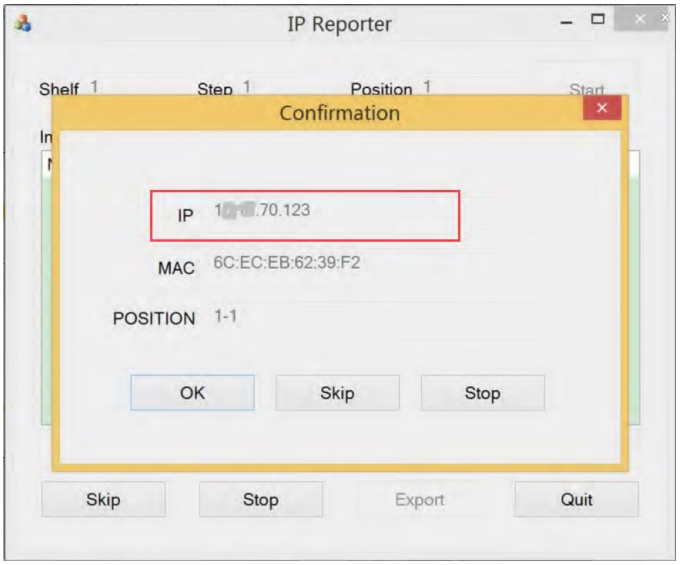
4. Right-click **IPReporter.exe** and run it as Administrator.
5. Select one of the following options:
   - Shelf, Step, Position – suitable for farm servers to mark the location of the servers.
   - Default – suitable for home servers.
6. Click **Start**.



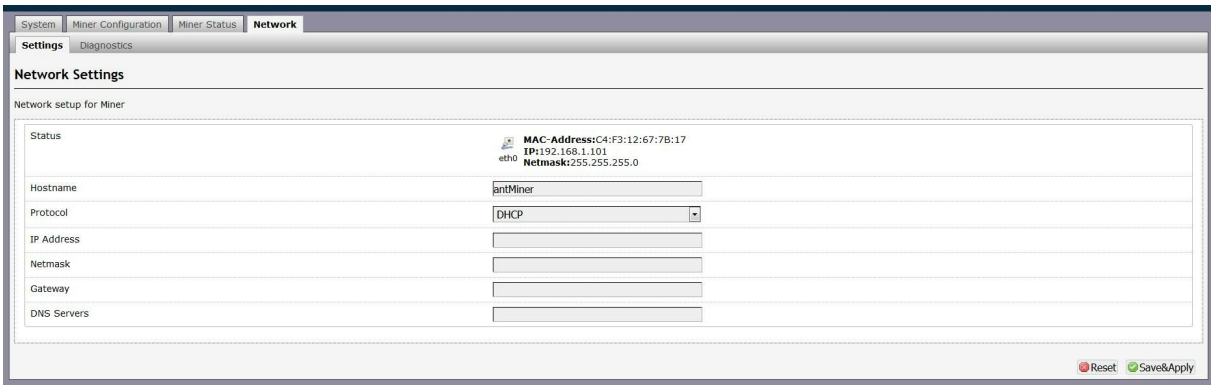
7. On the controller board, click the IP Report button. Hold it down until it beeps (about 5 seconds).



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**.

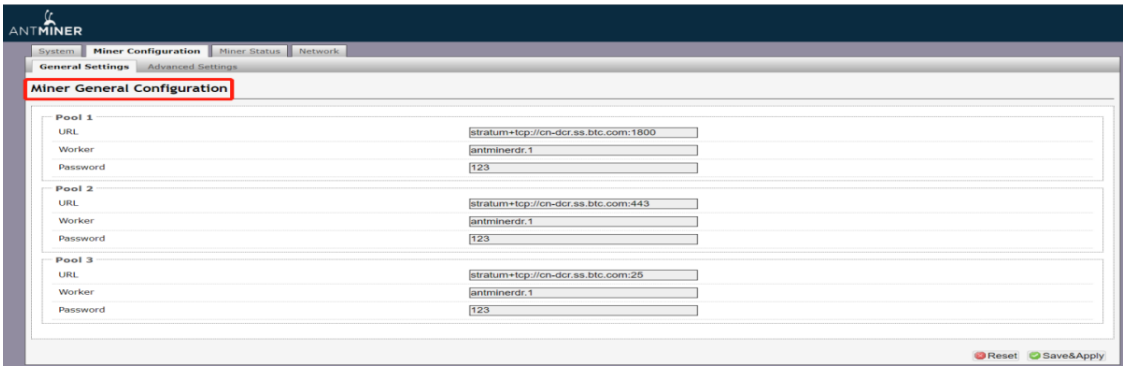


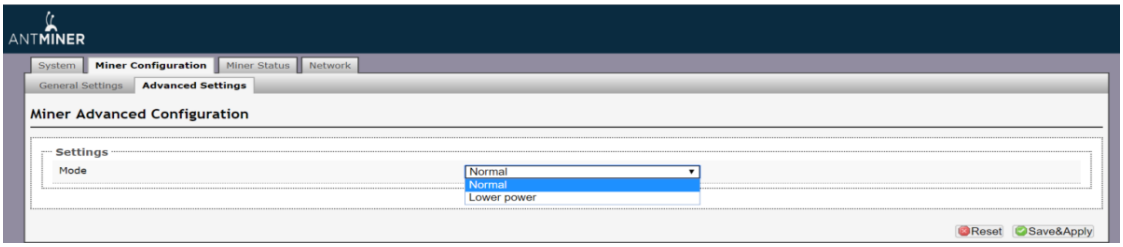
3. Configuring the Server

Setting Up the Pool

To configure the server:

1. click **General Settings**





Note: There are two modes of Hashrate which u may adjust: Normal and Low power mode. Power consumption varies with different mode. Please refer to the specifications above for more details.

2. Set the options according to the following table:

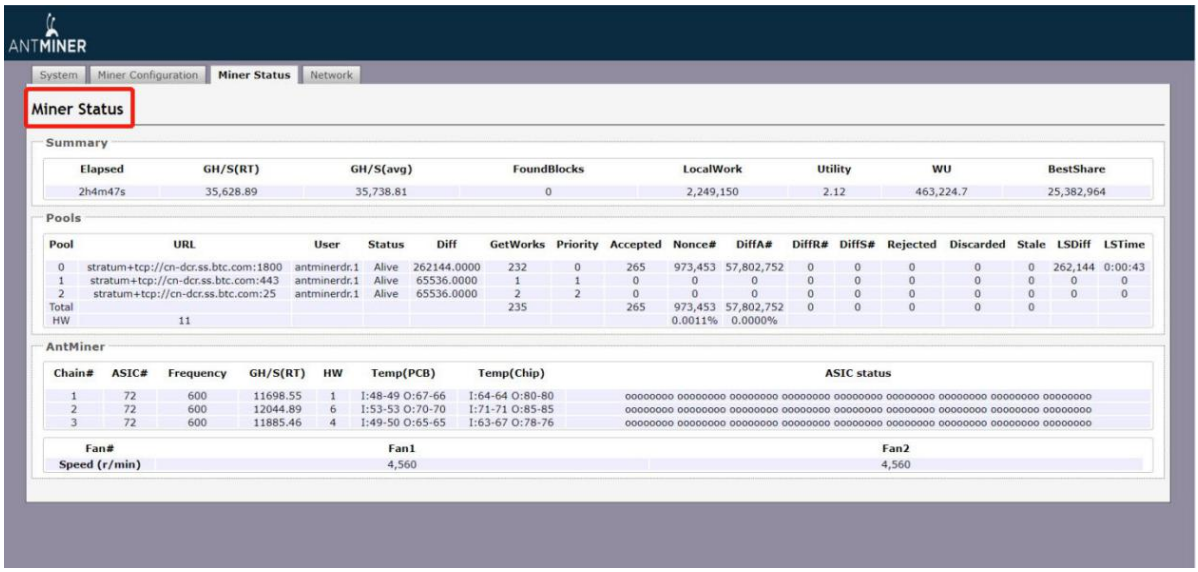
Option	Description
Pool URL	Enter the URL of your desired pool. The DR5 server can be set up with three mining pools, with decreasing priority from the first pool (pool 1) to the third pool (pool 3). The pools with low priority will only be used if all higher priority pools are offline.
Worker	Your worker ID on the selected pool.
Password	The password for your selected worker.

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

4. Monitoring Your server

To check the operating status of your server:

1. Click the status marked below.



Note: The DR5 server is with fixed frequency adjustment 600 MHZ. Firmware will stop running when the Temp(chips) reaches to 100℃， there will be an error message “Fatal Error: Temperature is too high!” shown in the bottom of kernel log page.

2. monitor your server according to the descriptions in the following table:

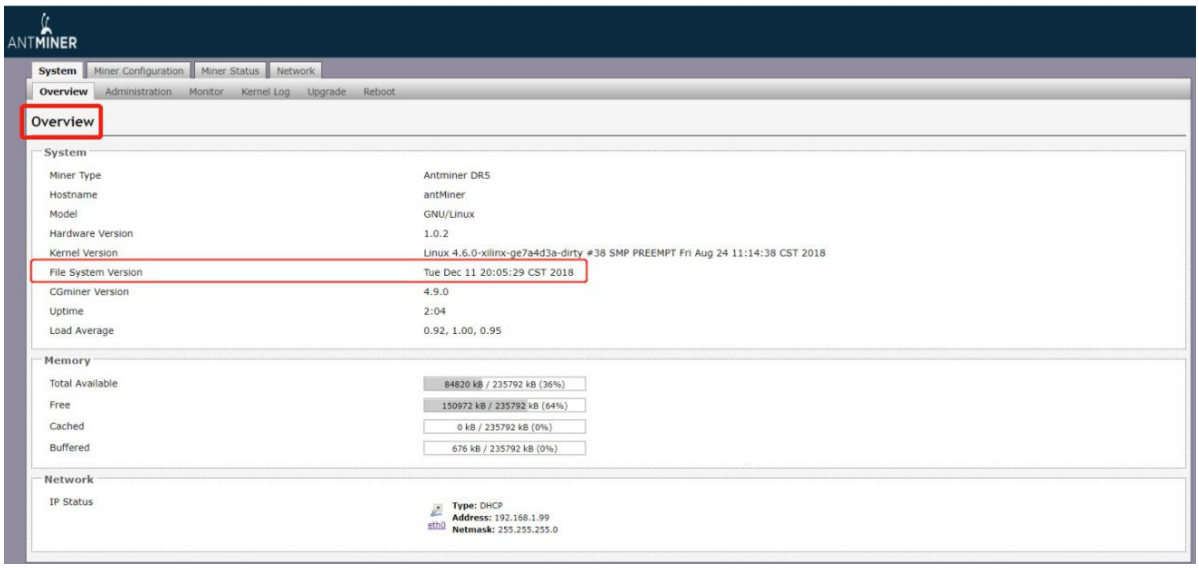
Option	Description
ASIC#	Number of chips detected in the chain.
Frequency	ASIC frequency setting.
GH/S(RT)	Hash rate of each hash board (GH/s)
Temp(PCB)	Temperature of each hash board (°C).(Applied only to server with fixed frequency)
Temp(Chip)	Temperature of the chips on each hash board (°C).
ASIC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

5. Administering Your Server

5.1 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 20181211.

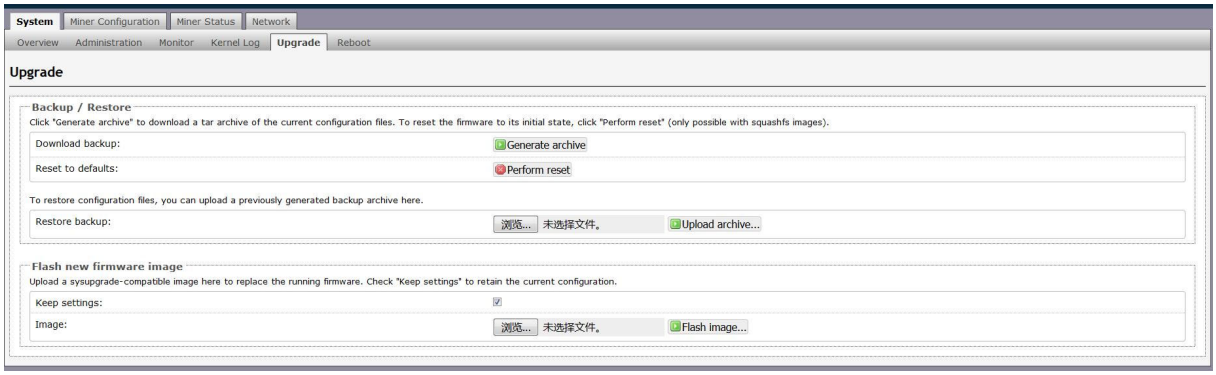


5.2 Upgrading Your System

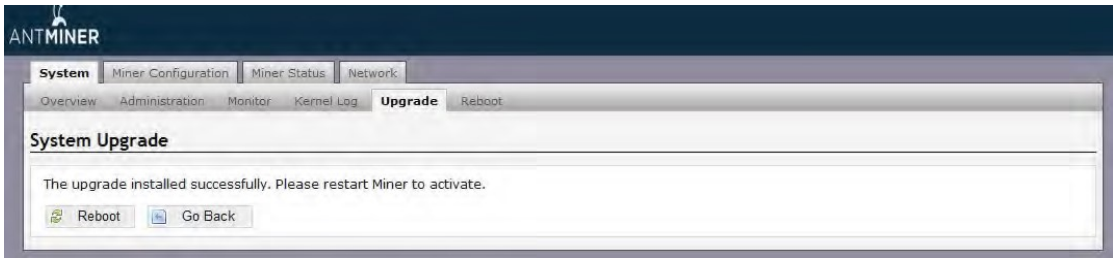
Make sure that the DR5 server remains powered during the upgrade process. If power fails before the upgrade is completed, you will need to return it to Bitmain for repair.

To upgrade the server's firmware:

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



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 DR5 firmware can be upgraded and if yes, will then proceed to flash the image.
4. When the upgrade is completed, the following message appears:

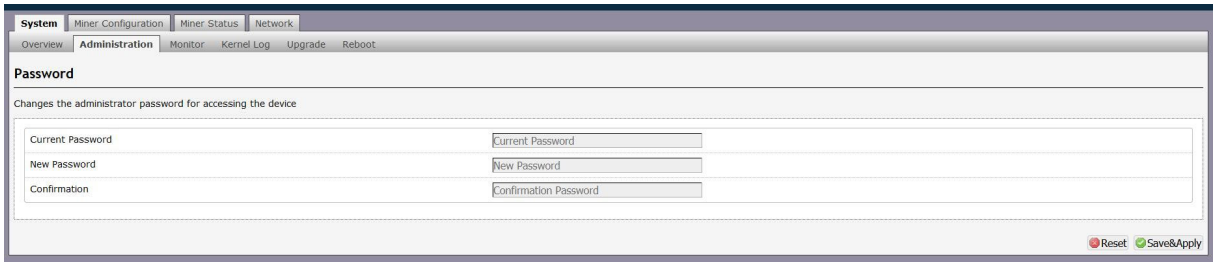


5. Click one of the following options:
   - **Reboot** - to restart the server with the new firmware.
   - **Go Back** - to continue mining with the current firmware. The server will load the new firmware next time it is restarted.

5.3 Modifying Your Password

To change your login password:

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



5.4 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.

Regulations:

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.

台湾 ROHS:

設備名稱：DR5 服務器，型號：240-A

單元	有害物质					
	鉛 (Pb)	汞 （Hg）	鎘 （Cd）	六價鉻 (Cr+6)	多溴聯苯 （PBB）	多溴二苯醚 （PBDE）
外殼	o	o	o	o	o	o
電路板組件	—	o	o	o	o	o
其他線材	—	o	o	o	o	o

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.〝o〞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