# BITMAIN



# **D3 Server**

# **Installation Guide**

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1.0verview

## 1. Overview

The D3 server is Bitmain's newest version in the D3 server series. It boasts a state-of-the-art BM1760 custom-made chip using 28nm technology. All D3 servers are tested and configured prior to shipping to ensure easy set up.





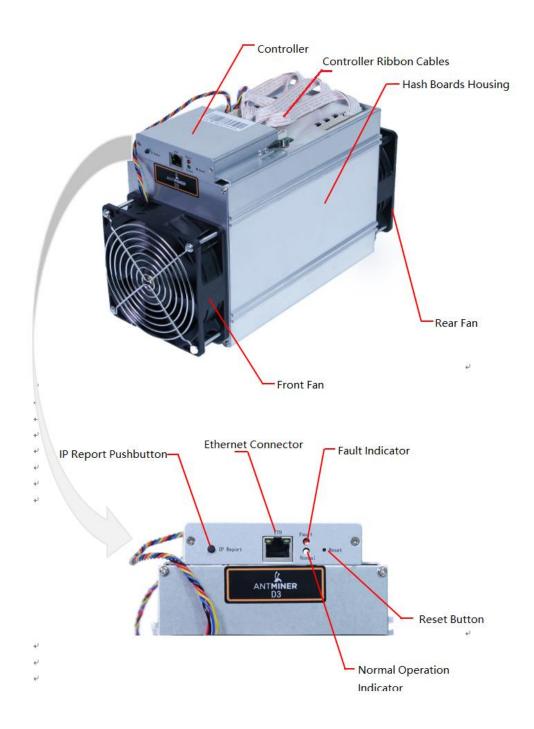
Power supply unit is **not included**. Please provide your own ATX power supply.



1.0verview

## 1.1 D3 Server Components

The D3 server main components and controller front panel are shown in the following figure:





## **1.2 Specification**

Hash Rate	17 GH/s±5%
Rated voltage	11.60 ~ 13.00V
Frequency	487M
Estimated wall outlet power consumption (with	
APW3, 93% efficiency, 25°C ambient temperature)	970W + 7%
Estimated wall outlet power efficiency (with	
APW3, 93% efficiency, 25°C ambient temperature)	57mJ/MH + 7%
Dimensions (L x W x H)	320mm*130mm*190mm
Net weight without packaging	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

## 2. Connecting the Power Supply

Ten PCI-e connectors are located at the top of the D3 server for connecting the PSU as follows:

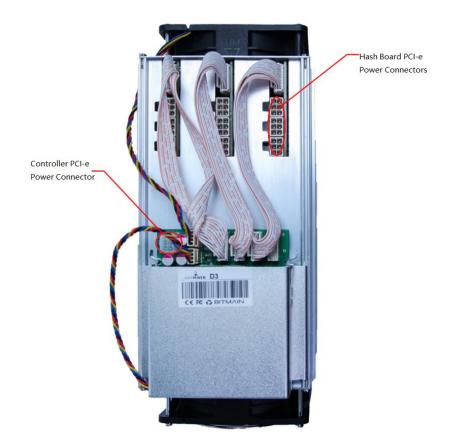
- Nine PCI-e connectors for the hash boards. Each hash board has a set of three PCI-e connectors.
- One PCI-e connector located on the controller.

Each hashboard must be powered by the same PSU on both connectors to prevent

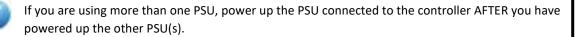
Possible damage and instability.

#### To connect the power supply:

1. Connect PSU power cable connectors to each of the nine PCI-e connectors on the top of the D3 server , ensuring that each hash board is powered by the same PSU.



- 2. Connect a PSU power cable connector to the D3 server PCI-e connector on the controller.
- 3. Connect the network cable to the ETH port. (WIFI is unavailable for servers)
- 4. To power up your D3 server, connect the PSUs to the power wall outlet.



2. Connecting the Power Supply

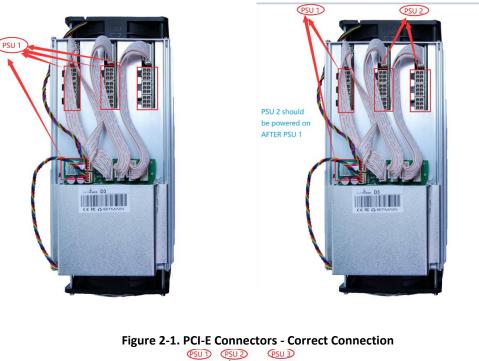




Figure 2-2. PCI-E Connectors - Incorrect Connection

3. Setting Up the Server

## 3. Setting Up 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 file: IPReporter.zip
- 3. Extract the file.

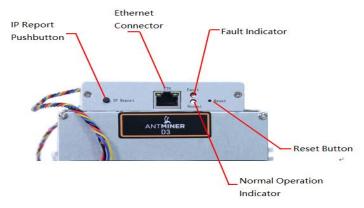
The default DHCP network protocol distributes IP addresses automatically.

- 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 Information NO. IP	Step 1	Posit	ion 1	Start	5
NO. IP	1				
					-
this is suitable for			MAC		
	farm miners to m				
if you're home mi	ter, you may lea	ve it as defa	ult directly.		
1.1.					
<					>
-					-
01110	Stop		Export	Quit	
Skip				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.

	Ił	P Reporter		
Shelf 1	Step 1	Position	1	Start ×
ln 1			_	
	IP 10.70.12 MAC 6C:EC:EB:6	20.0		
PC	DSITION 1-1			
	ОК	Skip	Stop	
Skip	Stop		xport	Quit

- 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	&	Арр	ly
-----	-------	------	---	-----	----

System Miner Configuration Miner Status Network Settings Diagnostics Network Settings Network setup for Miner		
Status	MAC-Address:D4:36:39:11:49:88 eth0 = 1:92.266.200.35 eth0 = Netmask:25:255:25:26.0	
Hostname	antMiner	
Protocol	(DHCP ¢)	
IP Address		
Netmask		
Gateway		
DNS Servers		
	Beer (	Save&Annhr

4. Configuring the Server

# 4. Configuring the Server

## 4.1 Setting Up the Pool

### To configure the server:

NTMINER

- 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 D3 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.

er General Configuration		
Pool 1		
URL	stratum-dash.antpool.com:6099	
Worker	antminer_1	
Password	123	
Pool 2		
URL	stratum-dash.antpool.com:443	
Worker	antminer_1	
Password	123	
Pool 3		
URL	stratum-dash.antpool.com:25	
Worker	antminer_1	
Password	123	
Setup		
Customize the fan speed percentage	<b>%</b>	



# 4.2 Modifying the Frequency

You are able to modify the frequency value through 'Configuration —>Advanced Settings'.

Bitmain recommend a default frequency of D3 server , and Overlocking the server will void the warranty immediately.

NTMINER		
System Miner Configuration Miner Status Network General Settings Advanced Settings Miner Advanced Configuration		
Settings Frequency	Default setting	
		Reset Save&Apply



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:
	• <b>O</b> - indicates OK
	• X - indicates error
	• indicates dead

	IS																	
Summary																		
Elap	osed	MH/S(RT)	)	MH/S(av	rg)		FoundBl	ocks		LocalW	/ork		Utility		wu	E	BestShare	ć.
32m	142s	17,106.6		17,462.5	53		0			10,60	01		5.78	22	25.03		449552	
Pools																		
Pool		URL		User	Status	Diff	GetWorks	Priority	Accepted	Nonce#	DiffA#	DiffR#	DiffS#	Rejected	Discarded	Stale	LSDiff	LSTI
0	stratum+tcp://	stratum-dash.antpoo	al.com:6099	Avery1989.01	Alive	32.0000	50	0	189	63,852	7,360	0	0	0	1,070	0	32	0:00
1	stratum+tcp://	stratum-dash.antpo	ol.com:443	Avery1989_01	Alive	64.0000	3	1	0	0	0	0	0	0	0	0	0	Nev
2	stratum+tcp:/	/stratum-dash.antpo	ool.com:25	antminer_1	Dead	0.0000	0	2	0	0	0	0	0	0	0	0	0	Nev
total							53		189	63,852	7,360	0	0	0	1,070	0		
HW		4								0.0063%	0.0543%							
AntMiner																		
Chain#	ASIC#	Frequency	MH/S(RT)	HW	Temp(PCB)		Temp(Chip)						ASIC stat	us				
1	60	487	5680.34	0	56		69	00000000 0000000 0000000 0000000 000000				0000						
2	60	487	5714.23	4	54		67				0000							
3	60	487	5712.02	0	57		71						0000					
Fan				Fan	1								F	an2				
Speed (	r/min)			4.29	0								4	,290				

Note: The D3 server will stop running when the Temp(PCB) exceeds to 85°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. (Screenshot below of S9 server just for your reference to display the message, the message shows on your computer shall prevail.

System Miner Configuration Miner Status	Network	
Overview Administration Monitor Kernel	Log Upgrade Reboot	
verview		
System		
Miner Type	AntMiner S9	
Hostname	antMiner	
Model	GNU/Linux	
Hardware Version	0.1.1.0	
Kernel Version	Linux 3.10.31-Itsi-00003-qcf03eb9 #81 SMP Mon Apr 25 11:20:36 CST 2016	
File System Version	Fri May 27 11:57:58 CST 2016	
Cgminer Version	4.9.0	
Uptime	1	
Load Average	0.70, 0.71, 0.68	
Метогу		
Total Available	27540 kB / 1016172 kB (3%)	
Free	988632 kB / 1016172 kB (97%)	
Cached	0 kB / 1016172 kB (0%)	
Buffered	0 kB / 1016172 kB (0%)	
Network		
IP Status	Type: DHCP     Address: 192.168.20.30     thD0     thm ask: 255.255.254.0	

## 6.2 Upgrading Your System



Make sure that the D3 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.

stem Miner Configuration Miner Status Ne	work					
verview Administration Monitor Kernel Log	Upgrade Reboot					
grade						
Backup / Restore Click "Generate archive" to download a tar archive	of the current configuration files. To reset the fi	rmware to its initial state, click "Perform reset" (only possible	e with squashfs images).			
Download backup:	Generate archive	Generate archive				
Reset to defaults:	Perform reset	O Perform reset				
To restore configuration files, you can upload a pre-	viously generated backup archive here.					
Restore backup:	选择文件 未选择任何文	ζ件 Deload archive				
Flash new firmware image						
Upload a sysupgrade-compatible image here to rep	ace the running firmware. Check "Keep setting	s" to retain the current configuration.				
Keep settings:	0					
heep settingst						

#### 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 D3 server firmware can be upgraded and if yes, will then



proceed to flash the image. (Note: Please do not extract the update file and keep the power on during updating firmware or otherwise the server needs to be returned to the factory to repair. And around two minutes will be needed to complete updating.)

ystem	Miner Configuration Mine	er Status Netwo	rk		
verviev	Administration Monitor	Kernel Log	Ipgrade Reboot		
ograd					
9					
	load firmware image			 	

3. When the upgrade is completed successfully, the following message will appear: (Screenshot below of S9

server just for your reference to show the message, the message shows on your computer shall prevail).



## 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.

ystem Miner Configuration Miner Status	letwork
Verview Administration Monitor Kerne	og Upgrade Reboot
ssword	
anges the administrator password for accessing t	
Current Password	Durrent Password

## 6.4 Restoring Initial Settings

To restore your initial settings, two methods below for your reference.

- 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 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.

	T	設備名稱		,型號:			
	有害物质						
單元	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr+6)	多溴聯苯 (PBB)	多溴二苯 醚 (PBDE)	
外殼	0	0	0	0	0	0	
電路板組 件		0	0	0	0	0	
其他線材	· · · · · · · · · · · · · · · · · · ·	0	0	0	0	0	
基準 值。 備考 2. °C	"係指該項隊	"及"超出 0.( 長用物質之百分 艮用物質為排弱	比含量未超出		了分比含量超出了 "準值。	百分比含量	

#### 台湾 ROHS: