# BITMAIN

# ANTMINER

# S9j Server

# **Installation Guide**

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1.0verview

# 1. Overview

The S9j server is one of the products in Bitmain's S9 server series. All S9j servers are tested and configured prior to shipping to ensure easy set up.





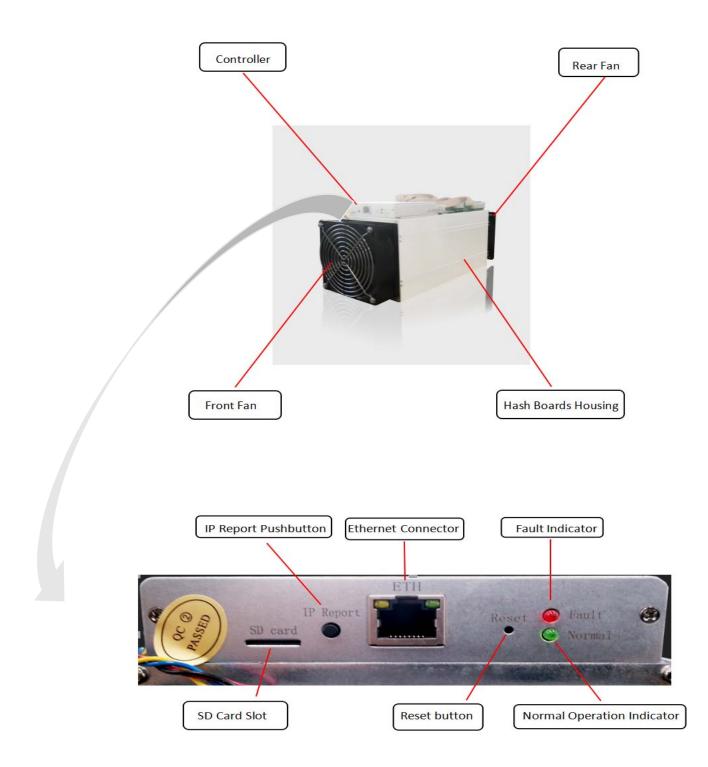
You must provide your own ATX power supply.



1.0verview

### 1.1 S9j Server Components

The S9j server main components and controller front panel are shown in the following figure:



1.0verview

# **1.2 Specifications**

Product Glance	Value
Product model	S9j-14.5T
Hashrate, TH/s	14.50±5%
Reference power on wall, Watt	1350±10%
Reference power efficiency on wall @25 $^\circ C$ , J/TH	93.12±10%
Adapted AC/DC output requirement, Watt / Volt	1650 / 12.00



2. Connecting the Power Supply

# 2. Connecting the Power Supply

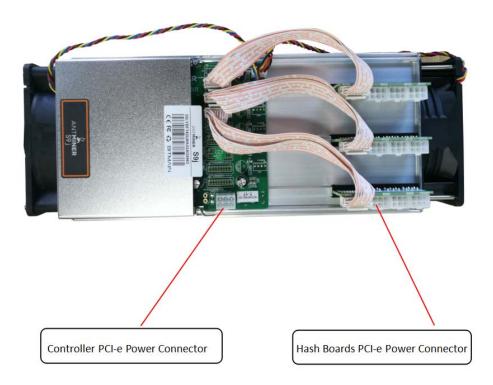
Ten PCI-e connectors are located at the top of the S9j server for connecting the PSU as follows:

- Nine PCI-e connectors for the hash boards. Each hash board has 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 on the top of the S9j server, ensuring that each hash board is powered by the same PSU.



- 2. Connect a PSU power cable connector to the S9j PCI-e connector on the controller.
- 3. Connect the network cable to the ETH port.

4. To power up your S9j 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

# 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.



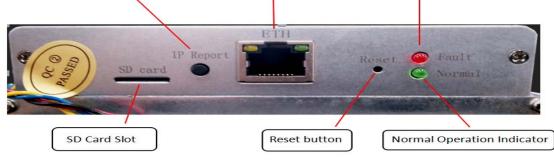
The default DHCP network protocol distributes IP addresses automatically.

- 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	Posit	ion 1	Sta	art
Information	1				_
NO. IF	2		MAC		
	for farm miners to miner, you may le				
i youre nome	initial, you may le	ave it as uela	un anecuy.		
	-	-			
<					>
<					>



- IP Report Pushbutton Ethernet Connector Fault Indicator ETH
- 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.

art X

- 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.

etwork Settings		
etwork setup for Miner		
Status	MAC-Address:(24:F3:12:67:78:17 19:192.168.1.101 etb0 Netmaskr255.255.255.0	
Hostname	antMiner	
Protocol	DHCP	
IP Address		
Netmask		
Gateway		
DNS Servers		



# **4. Configuring the Server** Setting Up the Pool

#### To configure the server:

ANTMINER

1. click General Settings.

Ant Miner X		Θ – σ
← → C () 192.168.32.92/cgi-bin/minerConfiguration.cgi		B∈ ☆
System Miner Configuration Miner Status Network		
General Settings		
Miner General Configuration		
, Pool 1		
URL	solo antpool com:3333	
Worker	antminer_1	
Password	123	
- Pool 2		
URL	stratum antpool com:3333	
Worker	antminer_1	
Password	123	
- Pool 3		
URL	stratum+tcp://cn.ss.btc.com.3333	
Worker	antminer 1	
Password	123	
		@Reset Save&Apply

2. Set the options according to the following table:

Option	Description
Pool URL	Enter the URL of your desired pool. The S9j 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.



5. Monitoring Your Server

# 5. Monitoring Your server

To check the operating status of your server:

1. Click the status marked below.

nt Miner	×																Θ	- 0	3
CO	192.168.32	.92/cgi-bin/minerStatu	is.cgi															<b>S</b> ()	i
L IINER																			
ner Stat	iner Configur	Miner Status	Network																
Summary Elaj	psed	GH/S(RT)		GH/S(a	/g)		FoundB	locks		LocalWe	ork	U	ility	v	vu		BestShar	re	
3m58s		13,700.96		13,848.	28		0			12,05	9	Z	.77	181,	738.49	24408889			
Pools																			
Pool		URL		User	Status	Diff	GetWorks	Priority	Accepted	Diff1#	DiffA#	DiffR#	Diffs#	Rejected	Discarded	Stale	LSDiff	LSTime	e
0	stratum	+tcp://solo.antpool.com:33	333 ani	tminer_1	Alive	65.5K	7	0	11	0	720,896	0	0	0	122	0	65,536	0:00:02	2
1	stratum+t	tcp://stratum.antpool.com:	3333 ani	tminer_1	Dead		0	1	0	0	0	0	0	0	0	0	0	Never	
2	stratur	m+tcp://cn.ss.btc.com:333	33 an	itminer.1	Dead		0	2	0	0	0	0	0	0	0	0	0	Never	
total							7		11	0	720,896	0	0	0	122	0			
HW		Ø								0	0.0000%								
AntMiner																			
Chain#	ASIC#	Frequency(avg)	GH/S(ideal)	GH/	S(RT)	HW	Temp(Chip1)	Temp	(Chip2)					ASIC status					
6	63	599.46	4,214.12	4.2	42.25	0			75		00000000	00000000				0000000	addoopo		
7	63	647.11	4.643.67		06.60	0			68						000 00000000 0				
8	63	653.17	4.643.53		52.11	0			70						000 00000000 0				
Total	189	633.24	13,501.32		700.96				11-1										
		Fan1	Far	n2		Fan:		Fan4		Fai	15		Fan6		Fan7		Fan	8	
Fa							n3 Fan4 140 0			0 4,920 0									

#### 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

Note: The S9j server is with automatic frequency adjustment. Firmware will stop running when the Temp(PCB) reaches to 95°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 20180713.

Ant Miner ×		
C (0 192.168.32.92		07
4		
1ÎNER		
System Miner Configuration Miner Status Network		
Overview Administration Monitor Kernel Log Upgra	de Réboot	
verview		
System		
Miner Type	Antminer 59j	
Hostname	antMiner	
Model	GNU/Linux	
Hardware Version	16.8.1.3	
Kernel Version	Linux 3.14.0-xilinx-ge8a2f71-dirty #82 SMP PREEMPT Tue May 16 19:49:53 CST 2017	
File System Version	Fri Jul 13 10:46:43 CST 2018	
Logic Version	\$9j_V2.12	
BMminer Version	2.0.0	
Uptime	6	
Load Average	0.07, 0.06, 0.03	
Memory		
Total Available	38805 kB / 405632 kB (8%)	
Free	456736 kB / 405632 kB (02%)	
Cached	0 kB / 405032 kB (0%)	
Buffered	0 kB / 495632 kB (0%)	
Network		
IP Status	Type: DHCP Address: 102.168.17.02 dt/20 Retimate: 25.252.37.0	

#### 6.2 Upgrading Your System

Make sure that the S9j 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.

System Miner Configuration Miner Status Network Overview Administration Monitor Kernel Log Upg		
Upgrade	In the second	
Backup / Restore Click "Generate archive" to download a tar archive of the curr	rent configuration files. To reset the firmware to its initial state, click "Perform reset" (only possible with squashfs images).	
Download backup:	C Generate archive	
Reset to defaults:	Perform reset	
To restore configuration files, you can upload a previously get	nerated backup archive here.	
Restore backup:	源宽 未选择文件。 Upload archive	
Flash new firmware image Upload a sysupgrade-compatble image here to replace the ru	unning firmware. Check "Keep settings" to retain the current configuration.	
Keep settings:	×.	
Image:	词题 未选择文件。 IFIash image	

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 通择文件 (Browse) button and navigate to the upgrade file. Select the upgrade file, then click Flash image. A message appears notifying you if the S9j firmware can be upgraded and if yes, will then proceed to flash the image.
- 4. When the upgrade is completed, the following message appears:

System Miner Configuration Miner Status Network	
Overview Administration Monitor Kernel Log Upgrade Reboot System Upgrade	
System Opgrade	
The upgrade installed successfully. Please restart Miner to activate.	

- 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**.

System         Miner Configuration         Miner Status         Network           Overview         Administration         Monitor         Kernel Log         Upgrade         Reboot		
Password		
Changes the administrator password for accessing the device		
Current Password	Current Password	
New Password	New Password	
Confirmation	Confirmation Password	
		Reset 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):

S9j Server Installation Guide

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.

		設備名稱:	,	型號 <b>:</b>				
	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		
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. "一"係指該項限用物質為排除項目								

#### 台湾 ROHS: