BITMAIN

ANTMINER

S11 Server

Installation Guide

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1. Overview

The S11 server is Bitmain's newest version in the S11 server series. Power supply APW8 is part of S11 server. All S11 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 S11 Server Components

The main components and controller front panel of S11 server are shown in the following figure:





APW8 Power Supply:



Note:

1.Power supply APW8 is part of S11 server. For detailed parameters, please refer to the specifications below.

2. Additional power cord is needed.



1.2 Specifications

Model No.: 240-A Version: S11

Product Glance	Val	ue
Product Glance	Low Power	Normal
Crypto Algorithm/Coins	SHA256/	втс/всн
Hashrate, TH/s	15.5~17.00	19.00
Reference power on wall, Watt	992~1088	1349
Reference power efficiency on wall @25°C, J/TH	64.00	71.00

Detailed Characteristics			Value	
Detanea enaracteristics		Min	Тур	Max
Hashrate & Power				
Hashrate, TH/s	Low Power		15.5~17.00	+3% (1-1)
	Normal		19.00	19.45
Power efficiency on wall @25°C, J/TH	Low Power	64.00		68.48
	Normal	71.00		75.97
Power efficiency on wall @40°C, J/TH	Low Power	67.49		72.22
	Normal	74.76		80.00
	Low Power	992		1265
Power on wall, Watt ⁽¹⁻²⁾	Normal	1349		1556
Power supply AC input voltage, Volt ⁽¹⁻³⁾		200	220	240
Power supply AC input current, Amp ⁽¹⁻⁴⁾	Low Power		4.51	6.33
Power supply AC input current, Amp 3	Normal		6.13	7.78
Power supply Input AC Frequency Range, Hz		47	50	63
Hardware Configuration				
Quantity of hash chips			252	
Quantity of hash boards			3	
Networking connection mode		RJ45 Ethei	rnet 10/100M	



Server Size (Length*Width*Height, w/o 254*176*297 package),mm ⁽²⁻¹⁾								
Net weight, kg ⁽²⁻²⁾ 8.1								
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 voltageMax 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:

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



2.Setting Up the Server

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.

Shelf 1	Step 1	De	sition 1		Start
	Step	, ru	SIGOT	-	Start
Information					
NO. IF			MAC		
	for farm miners to miner, you may l				
T VOUTO DODO	minar vali mavi	DAVA F DE /	STALLE CHEACTH		
ii you're nome	miner, you may i	cave it as u		у.	
ii you're norne	miner, you may i			у.	
n you're nome	miner, you may i			y.	
i you're norne	miler, you may i			y.	
i you're norne	miler, you may i			y.	
i you're norne	miner, you may i			y.	
	miner, you may i			y.	
	miner, you may i			¥-	2
				y.	3





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.

	Confirmation		×
IP 100.70	.123		
MAC 6C:EC:E	B:62:39:F2		
ITION 1-1			
ОК	Skip	Stop	
	IP 1	Confirmation IP 1270.123 MAC 6C:EC:EB:62:39:F2 ITION 1-1	IP 1272.70.123 MAC 6C:EC:EB:62:39:F2 ITION 1-1

- 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
-----	-------	------	---	-------

-

System Miner Configuration Miner Status Network		
Settings Diagnostics		
Network Settings		
Network setup for Miner		
Status	MAC-Address:C4:F3:12:67:7B:17 IP:192.168.1.101 Netmask:255.255.255.0	
Hostname	antMiner	
Protocol	DHCP	
IP Address		
Netmask		
Gateway		
DNS Servers		
L		
		Reset Save&Apply

3. Configuring the Server



3. Configuring the Server Setting Up the Pool

To configure the server:

1. click General Settings.

stem Miner Configuration Miner Status Network		
meral Settings		
ner General Configuration		
Pool 1		
URL	stratum antpool.com:3333	
Worker	antminer_1	
Password	123	
Pool 2		
URL	stratum antpool com: 443	
Worker	antminer_1	
Password	123	
Pool 3		
URL	stratum.antpool.com.25	
Worker	antminer_1	
Password	123	
Setup Low Power Mode	0	



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 S11 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

4. Monitoring Your server

To check the operating status of your server:

1. Click the status marked below.

						_	_	_										
ystem Mine	er Configuration	Miner Status Netwo	rk															
iner Statu	s																	
Summary	_																	
	Elapsed	GH/S	S(RT)	GH/	S(avg)		Fou	IndBlocks		Local	Vork	Ut	ility	w	U		BestShare	
6	h21m55s	20,2	91.96	20,	233.28			0		1,472	,879	3	.73	244,0	97.65		51338973	
Pools																		
Pool	URL		User	Status	Diff	GetWorks	Priority	Accepted	Diff1#	DiffA#	DiffR#	DiffS#	Rejected	Discarded	Stale	LSDiff	LST	
0	str	atum+tcp://stratum.antpool.	.com:3333	antminer 1	Alive	65.5K	479	0	1.426	0	93,224,960	0	0	0	11.177	0	65.536	0:0
1		ratum+tcp://stratum.antpool		antminer_1	Alive	32.8K	2	1	0	0	0	0	0	0	0	0	0	Ne
2	st	tratum+tcp://stratum.antpoo	l.com:25	antminer_1	Alive		2	2	0	0	0	0	0	0	0	0	0	Ne
total							483		1,426	0	93,224,960	0	0	0	11,177	0		
HW		2512								0	0.0027%							
AntMiner																		
Chain#	ASIC#	Frequency(avg)	GH/S(ideal)	GH/S(RT)	HW	Temp(Chip1)	Temp(0	Chip2)					ASIC sta	tus				
6	84	725.00	6,942.60	6.923.97	0	60	44	4		000000	00000 0000000 0000	0000 00000000 0000	00000 0000000	0000 00000000 0000	0000 00000000 0000	0000 0000		
7	84	716.66	6,862.80	6,769.15	0	59	43	3		0000000 0000000 0000000 0000000 0000000								
8	84	691.66	6,623.40	6,598.83	0	58	43	1		000000	00 0000000 00000	0000 00000000	00000 0000000	2000 00000000 0000	0000 00000000 0000	0000 0000		
Total	252	711.11	20,000.00	20,291.94														
	Fan#	Fan1		Fan2		Fan3		Fan4		Fi	an5		Fan6		Fan7		Fant	4
Page	d (r/min)	0		0		0		0		1	240		3,360		0		0	

Note: The S11 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.

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. 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 20190102.

ITMINER	
System Miner Configuration Miner Status Network	
Overview Administration Monitor Kernel Log Upgrade Ret	and the second se
Overview	
System	
Miner Type	Antrainer S11
Hostname	antNiner
Model	GNU/Linux
Hardware Version	30.0.1.3
Kernel Version	Linux 3.14.0-xilinx-n16220c3 #83 SMP PREEMPT Thu Jul 12 11:42:53 CST 2018
File System Version	2019年 01月 02日 题相三 11:16:42 CST
Logic Version	temp version
BMminer Version	2.0.0
Uptime	6:25
Load Average	0.39, 0.47, 0.34
Memory	
Total Available	23148.k8 / 495922 k8.(7%)
Free	462464.b.# / 415502.b.# (82%)
Cached	0.48/ / 495592.38(0/%)
Buffered	0 kg / 485592 kg (0%)
Network	
IP Status	

5.2 Upgrading Your System



Make sure that the S11 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.

Miner Configuration Miner Status Network					
erview Administration Monitor Kernel Log Upgrade Reb	ot				
rade					
Backup / Restore Click "Generate archive" to download a tar archive of the current configural	on files. To reset the firmware to its initial state, click "Perform reset" (only possible with squashfs images).				
Download backup:	Generate archive				
Reset to defaults:	Perform reset				
Γο restore configuration files, γου can upload a previously generated backu	p archive here.				
Restore backup:	浏览… 未选择文件。 GUpload archive…				
Flash new firmware image Jpload a sysupgrade-compatible image here to replace the running firmware	. Check "Keep settings" to retain the current configuration.				
Keep settings:	Z				
Image:	浏览 未选择文件。 I III Flash image				

5. 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 S11 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**.

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

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:

	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	o			
其他線材	—	0	0	0	0	0			

設備名稱: S11 服務器,型號: 240-A

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. "一"係指該項限用物質為排除項目