

# LoveMiner

# A1 User's Guide



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# **1. Product Overview**

The miner A1 is first version in the Cheetah Miner series. It boasts an advanced ASIC chip using 10nm technology and complies with restrict and reliable design and manufacturing standards, completely surpassing the mainstream miners in the current market.

#### 1.1 Miner A1's components

Controller Connector supply socket Cables PCI-e Power Connector supply socket Cables PCI-e Power

The miner A1's main components are shown in the following figures:





The miner A1's controller front panel are shown in the following figures:

# **7** Functional Description

- ETH port is used to connect the Ethernet cable.
- The red and green lights indicate the operation status of the miner. When the green light twinkles, it indicates OK; when the red light keeps on, it indicates fault.
- Press and hold IP Report button more than 2 seconds to get the IP address of the miner.
- Press and hold Reset button more than 3 seconds to restore the default settings of the miner.

# Warning

- 1. Do not touch the rotating fan blades in case of personal injury.
- 2. Standard A1 power supply is recommended to avoid damage to A1 Miner or any safety accident.
- 3. The maximum power consumption of A1 Miner is about 2250W. Please confirm whether your power socket meets the power requirements of the mining machine.
- 4. Do not spill water or other liquids onto A1 Miner, especially the non-shell parts.



#### **1.2 Specifications**

ASIC chip	A1-1001-32core		
Hash rate	24T±5%		
Total quantity of chips	288PCS	Hash rate of a chip	86.7GH/s
Energy efficiency of a chip	0.09J/GH	Power consumption of a chip	7.5W/0.405V
Wall outlet power consumption	2100W±7%	Rated voltage	14.5~15.7V (Hash Board), 12V (Controller Board)
Operating ambient temp.	0°C~40°C (32°F~104°F)	Operating ambient humidity	5%RH~95%RH, non-condensation
Network linking	10/100/1000MBase-T	Dimensions(L×W×H)	(L)226mm*(W)180mm*(H)230mm
Noise	65dB	Net weight	4.5Kg

### 2. Starting Your Miner

#### **2.1 Preparatory Work**

Prepare a network cable, a Miner A1, a power supply unit, an AC power cord and a computer.

#### 2.2 Connecting the Power Supply

Ten PCI-e connectors are located at the top of the Miner A1 for connecting the PSU. Nine

PCI-e connectors are for the hash boards and each hash board has a set of three PCI-e connectors.

One PCI-e connector located on the controller is for the controller. (See figure 1 in part 1.1)

#### To connect the power supply:

- Connect PSU power cable connectors to each of the eight PCI-e connectors on the top of the miner and the PCI-e connector on the controller.
- 2) Connect the network cable to the ETH port.
- Check whether the flexible extension cables and the fan connection cable and regulated power supply socket on the top of the miner are connected properly.
- 4) After all cables have been connected correctly, connect the AC power cord to the power



outlet.

#### After connecting the power supply, please check whether the miner operates as follows:

- 1) the front and rear fans operate normally;
- 2) the green light on the controller twinkles;
- 3) the green light on the ETH port keeps on and the orange one twinkles;
- 4) the blue lights on the three sets of hash board PCI-e connectors keep on.

If the miner runs normally, you can move to the next step. If not, please troubleshoot the miner.

### 3. Setting Up Your Miner

- 1) Go to this site: <u>https://pan.baidu.com/s/18urvdKjU5zRioqliYFdnKA</u> password: x69c
- 2) Download the file: IP-Reporter.rar
- 3) Extract the file.
- Install JAVA run time environment (if it is installed, skip this step): https://pan.ba idu.com/s/1AmNTJ5hmUSUSs85jiLWQ2g password: gsif
- 5) Run the file: IP-Reporter.exe
- 6) Press the IP Set button for more than three seconds and then the IP address wil1 be displayed in the IP-Reporter interface.



	1 IP Re	eporter – 🗆 X	
	IP信息	172.16.8.26 IP上报 × i 172.16.8.26 确定	
		清除	
St	tatement		
• The	e file IP R	eporter.zip is supported by Microsoft Windows only.	
• The	e default I	DHCP network protocol distributes IP addresses automatically.	
• The	e compute	er should be connected to the same LAN as the miner.	
• If t	he IP repo	ort function is broken, maybe you should turn off firewall.	

 In your web browser, enter the IP address provided and proceed to login using the username "root" and password "root".

SI	GN IN	
Letter User Name		
Enter Password		
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In the Network Setting of Settings section, you can assign a Static IP address (optional).

- Setting up the pool. Click the Pool Setting in Settings section to set the options. Take the Viabtc as an example:
  - Pool URL: stratum+tcp://btc.viabtc.com
  - Port: 443 / 25 / 3333
  - Worker: set up according to the sub-account you create on the pool
  - Password: arbitrary password

After finishing the three settings, click Apply button.

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∧ Status	Pool Setting	
Dashboard	Pool 1	
√ Settings	URL	stratum+tcp://btc.viabtc.com:3333
Pool Setting	Worker	workname.subname
Network Setting		
• Work Mode	Password	123456
🛆 Logs		
Monitor	Pool 2	
• Kernel	URL	stratum+tcp://btc.viabtc.com:25
► Cgminer Log	Worker	workname.subname
▶ Upgrade	Password	123456
▶ Password		
Miner Control	Pool 3	
	F0013	
	URL	stratum+tcp://btc.viabtc.com:443
	Worker	workname.subname
	Password	123456
	Note: information for a	ll three pools must be complete.
	Config	



 In the Work Mode of Settings section, you can set up the work mode of the miner between Efficiency and Performance.

<ul> <li>Status</li> </ul>	Work Mode	
Dashboard	There are 2 tuning modes:	
🔨 Settings	• Efficiency: the miner will use less power but the hash rate wi	ll be lower
Pool Setting	Performance: high hash rate and high power consumption	
-	Tuning takes about 10 minutes and the result will be saved and use	d for again at reboot.
Network Setting	Please note hashrate will vary during the tuning process.	0
Work Mode		
> Logs	Efficiency     Performance	
Monitor	Tunning Status	
▶ Kernel	Current Mode: Efficiency	
▶ Upgrade	Tunning Status: Tuning	
Password		
Miner Control	Config	

After finishing the three settings, click Config button.

## 4. Monitoring Your Miner

- 1) Click Miner Status.
- 2) Monitor your miner through the followings:
  - Real-time hash rate: it shows the real-time hash rate of the miner in one minute. Average hash rate: it shows the average value of hash rate produced by the operating miner.
  - Working hour: it shows the uptime of the miner.
  - Fan: it respectively shows the rotating speeds of the front and rear fans as well as the duty cycle.
  - Curve graph: it shows the hash rate fluctuation of corresponding hash board from the moment it starts to work to the moment you check it.



# 5. Administering Your Miner

#### 1) Check your software version in **Dashboard** section.

In the example below, the miner is using software version: A1\_20190619\_151951

~	Status	Dashboard			
<b>@</b>	Dashboard	System Information		Memory(MB)	
	Settings	Miner Model 矿机类型	A1	Used Free	11.3%
	Network Setting	SN 序列号	A1	Oddined	28.0%
	• Work Mode	OS 操作系统	Linux		
	<ul> <li>Monitor</li> <li>Kernel</li> </ul>	Hardware Version 硬件版本	v40		60.7%
	<ul> <li>Cgminer Log</li> <li>Upgrade</li> </ul>	Kernel Version 内核版本	Linux rockchip 4.4.143 #45MP FREEMPT Thu May 23 16:06:17 CST 2019 aarch64 GNU/Linux		
	Password     Miner Control	Software Version 软件版本	a1_20190619_151951	Network Type 类型	static
		Release Date 版本发布时间	20190619	IP Address IP地址	10.37.129.2
		<b>Uptime</b> 运行时间	10min	Physical Address 物理地址	00:B1:F2:E3:07:93
		<b>Load Average</b> 平均负载	0.30 0.10 0.93 1/132 369		



#### 2) Upgrade your firmware

In Upgrade of Logs section, select a .img or .zip formatted file and then click Upgrade button.

	Status	Upgrade
1	Dashboard	System Upgrade
F	Settings	Please select the firmware file in your local computer then upload it to the miner by clicking 'Upgrade Firmware' button
	Pool Setting	Note:The firmware is a .img, .zip formated file, other formats are not supported.
	Network Setting	Upload Progress:
	• Work Mode	Upgrade Status:
ය	Logs	Upload .img format file: 选择文件 未选择任何文件 Upgrade Firmware
	▶ Monitor	
	• Kernel	
	▶ Cgminer Log	
	▶ Upgrade	
	▶ Password	
	Miner Control	

1	Statement
•	When the upgrade is complete, the miner system will reboot. Therefore, you need to
	refresh the interface to log in again.
•	The Monitor and Kernel in Logs section are designed for technicians to troubleshoot.
•	Make sure that the miner remains powered during the upgrade process.

#### 3) Modifying your password

In **Password** of Logs section, input your current password and new password and then click Apply button to modify your password.

<ul> <li>Status</li> </ul>	Password
Dashboard	Current Password
Settings	New Password :
Pool Setting	New Password
Network Setting	Confirm New Password :
Work Mode	New Password
🛆 Logs	Update
<ul> <li>Monitor</li> <li>Kernel</li> </ul>	
► Upgrade	
▶ Password	
Miner Control	

#### 4) Reboot your miner

In **Miner Control** of Logs section, click Reboot button and Confirm button, the miner will reboot immediately.

~	Status	Miner Control
1	Dashboard	Reboot
S.	Settings • Pool Setting	When you click on "Reboot" button below, the machine will start rebooting. You will need to wait several minutes for the system gets back.
	Network Setting	Reboul
	• Work Mode	
ථ	Logs	
	▶ Monitor	
	▶ Kernel	
	▶ Upgrade	
	▶ Password	
	Miner Control	

**Statement** In reboot process, the Miner Console is unavailable. After the reboot is complete, you can log in again.