

iBeLink DM11G Specification and Operation Guide

Version Update List

Time	Description	Version
2017-07-07	Initial version for DM11G	1.0
2017-07-08	Update FAQ	1.1

Component list

Index	Component	Count	Description
1	Main box	1	Size 49x35x18 cm
2	Power cord	1	For Power connection
3	Specification	1	This document

0 Disclaimer

1. The manufacturer is not liable for any loss or damage of the miner caused by irresistible force of nature.
2. The manufacturer is not liable for any loss or damage of hardware and/or software caused by unauthorized alteration of the miner.
3. The manufacturer is not liable for any loss or damage of the miner caused by over-clocking or improper heat dissipation.
4. The manufacturer is not responsible for any miner sold through unauthorized distribution channels.
5. The manufacturer is not responsible for any loss of the mining capability caused by ASIC unfriendly mining pool.
6. The manufacturer is not responsible for any loss due to the price fluctuation of crypto currency.

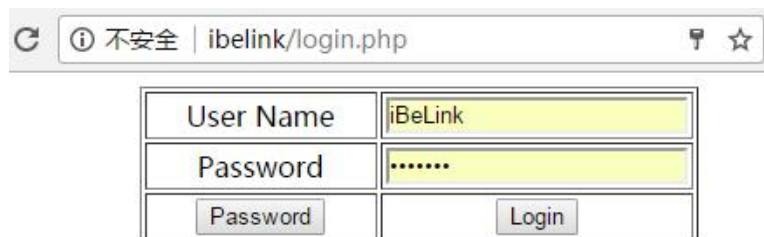
1 Feature

- Hash rate: 10.8GHash \pm 10%, power consumption: <810W/GHash
- Support all POW X11 algorithm encryption currency mining
- Support the Stratum protocol pool, p2pool, and solo mining
- Provide web management platform, ease of setup and large-scale deployment
- Web platform providing hash rate statistics, mining pool status monitor
- Support to restart mining software or to restart the machine through the web platform
- Support power-on self-test function and identifying each fault chip location
- Support hashing blade LED status indication, convenient for large scale mining operation
- Support main pool and multiple backup pool settings, and automatic switching of faulty pool
- Support email warning for hashing blade loss, and restart for self-recovery
- Support self-recovery from network and driver faulty with independent system watchdog
- Modular design easy for DIY(Do-It-Yourself) problem identifying and fixing

2 Operation Guide

2.1 Login mining machine

After linked to network and power up around 1 minute, the four LED lights on the front panel will turn from red to blue one by one, indicating mining started normally. On any computer in the same local network (exactly the same route) with the mining machine, enter the hostname (default name: iBeLink) or its IP address in the browser, such as: <http://iBeLink/>. You will access the login page as shown in Fig. 1. Input the default password: iBeLink and click the [Login] button to login the mining system.



User Name	iBeLink
Password
Password	Login

Fig. 1 Login page

You can change or retrieve the password of mining system by click the [Password] button at login page to link to password manager page as shown at Fig. 2.



User Name	iBeLink
Old Password	
New Password	
Confirm Password	
ReLogin	Change Password
MAC Address	
	Retrieve Password

Fig. 2 Password manager page

Filled the old password and double checked new password, and then click the [Change Password] to update your new password. If you forget your password, you can fill the MAC address of mining machine and click the [Retrieve Password] button to reset the password to default: iBeLink. Furthermore, if you have configured the warning email server and target email address(See the following description), clear the MAC address and click the [Retrieve Password] button and the forgot password will be sent to your warning email account. You can find the MAC address at your router's background as Fig. 3, and the MAC address is also displayed on the home page as Fig.4.



Fig. 3 Mac on the H3C router's background

2.2 State of mining machine

After login the mining system, you can see the mining machine home page web management platform, as shown in Fig. 4.

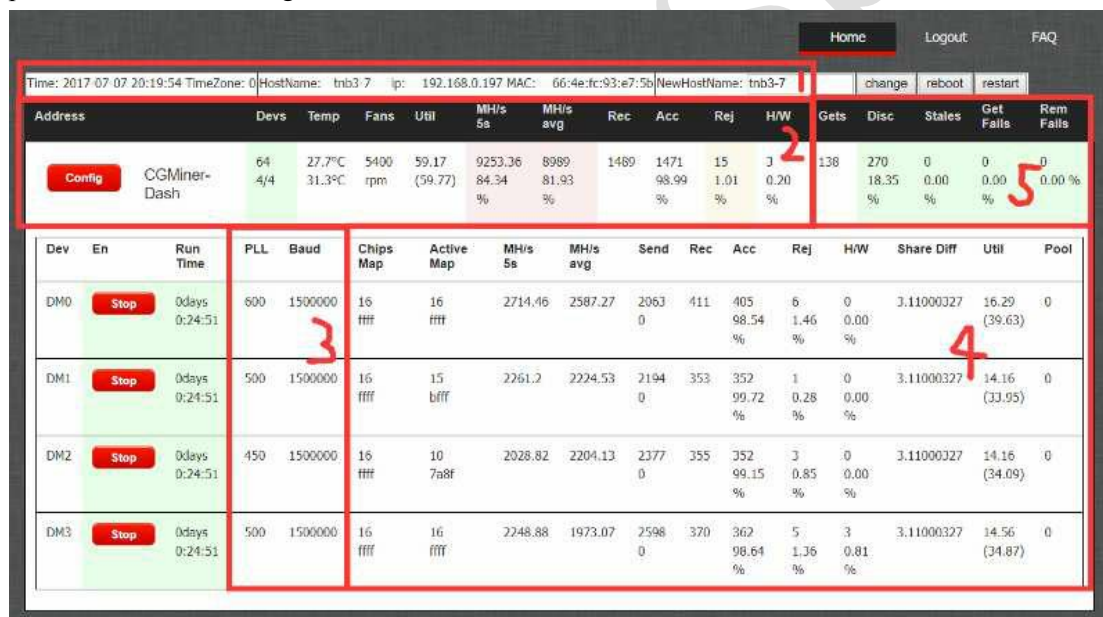


Fig. 4 iBeLink DM11G miner's homepage of management platform

The home page shows the basic information of the mining machine:

1. The current time, time zone, hostname, IP address, MAC address.
2. Mining machine chip count, blade count, temperature, average nonce count per minute, 5S and average hash rate statistics, returned nonce count from chip, accept/reject/error nonce count and rate from the starting up time.
3. The running time of the machine, PLL and serial baud rate parameter.
4. The chips count, the test result bitmap, returned nonce count from chip and bitmap during last 30 minutes, accept/reject/error nonce count and rate, the current task difficulty, average nonce

count per minute, and current mining pool index, all for each blade.

5. Statistics of task information from the mining pool.

2.3 Mining Configuration

1. Modify hostname: as shown in Fig.4, input the new hostname at the text box next to NewHostName, Click [**change**] button to modify the hostname, and reboot machine to take effect.

2. Click [**reboot**] button to restart the whole machine system.

3. Click [**restart**] button to restart mining software.

4. Configuration

In Fig.4, click the [**Config**] button to show the configuration section as Fig.5 (three parts).

In part 1:

Click the [**✓**] button to show the detail information of the selected pool(First line of part 2).

Click the [**Top**] button to set the highest priority for the mining pool.

Click the [**Stop**] button to disconnect the mining pool.

Click the [**Delete**] button to delete the mining pool.

In part 2:

Filling the mining pool address in the Pool URL input box, mining worker name in the Pool User input box, mining worker's password in the Pool Password input box, click the [**Add Pool**] button to add new mining pool.

The screenshot displays the mining configuration interface. At the top, there is a table with columns for pool index, status, hostname, and various performance metrics. The first row is highlighted in green, and a red '1' is placed to its right. Below the table is a detailed configuration form for a selected pool. The form is divided into several sections: Pool URL, Pool User, Pool Password, Email Server, Email User, Email Password, Email Target, Low Hashrate & High Reject Warning Duration(m), Start Time(m), Time Zone, Temperature Check Interval(s), Warming Temperature(°C), Safe Temperature(°C), Static IP, Netmask, Gateway, and Static IP Enable. Each section has input fields and a corresponding 'Action' button. A red '2' is placed to the right of the form. At the bottom of the form, there is a section for restarting or updating the system, with checkboxes and buttons for Restart, Reboot, Update, Rollback, and Restore. A red '3' is placed to the right of this section.

Index	Status	Hostname	Stop	Delete	142	2.41	1594	15	280	0	0	0
0	✓	stratum+tcp://bj.tianhengbo.com:7903			99.07 %	0.93 %	197.18 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
1	✓	stratum+tcp://wkl.cybtc.info:8888			1	0	0	0	0	0	0	0

Pool URL: stratum+tcp://bj.tianhengbo.com:7903

Pool User: Xo28fAnHFaQGsQqBjtZV8ruTmiRDj7YE

Pool Password: x

Action: Add Pool

Email Server: [Empty]

Email User: iBeLink

Email Password: [Empty]

Action: Set Email Server

Email Target: [Empty]

Low Hashrate & High Reject Warning Duration(m): [Empty]

Start Time(m): [Empty]

Time Zone: 0

Action: Set Warning Param

Temperature Check Interval(s): 11

Warming Temperature(°C): 32

Safe Temperature(°C): 30

Action: Set Warning Param

Static IP: 192.168.0.197

Netmask: 255.255.0.0

Gateway: 192.168.0.1

Action: Set IP Config

Static IP Enable: Enable

Action: Set PLL

PLL(25-600): 600

Action: Save All Configuration

Action: Save Configuration

Already send Low hashrate warning Email count: and High reject warning Email count: and Temperature warning Email count:

To restart cgminer or reboot system or update/rollback/restore cgminer version, click the checkbox, then press the button. Current version cgminer-IB3.5.11

Restart Reboot Update Rollback Restore

Fig. 5 Mining Machine configuration

5. Email warning configuration

Mining machine provides Email warning of High Temperature. Setup as following:

Filled the Email Server such as "smtp.gmail.com", Email User such as "example@gmail.com" and Email Password such as "123456", then click the **[Set Email Server]** button to set the mail account used to send warning mail. It should be noted that you will need to setup an **application-specific password** rather than using your account-password of Gmail - see:

<https://support.google.com/mail/?p=InvalidSecondFactor>

<https://security.google.com/settings/security/apppasswords>

For Chinese user using 163 or QQ email also has the same question as Fig. 6. The password is the authorization code not the password you login the email account using web browser.



Fig. 6 the authorization code of 163

So the system just support **Gmail, 163 and QQ** email for now. Other mail account may not work.

6. Temperature monitor configuration

Filled the Email Target, the Temperature Warning Duration (minute) and the Warning Temperature(°C), click **[Set Warning Param]** button to set Email warning parameters.

7. Static IP configuration

Mining machine provides DHCP as default. If you want to configure a static IP, it can be configured as following:

Filled the Static IP, Netmask, Gateway and selected the Static IP Enable checkbox, click **[Set IP Config]** button to enable the static IP. If you want to switch to default DHCP mode, just clear static IP enable checkbox and click **[Set IP Config]** button.

Attention, some routers may need to be configured accordingly in order to use the your static IP for mining. So we need to know your router well, and have deep understanding your network before you decide to use the static IP option.

IP mode configuration will take effect after reboot the machine system.

8. Save Configuration

After all parameters are configured, click **[Save Configuration]** button to save the all the configuration, otherwise some configuration may be lost when you reboot system.

9. ASIC chip parameter configuration

The default value of PLL is 600 MHz. You can set the value of PLL for the mining chips. In put the valid value of PLL in PLL input box then click [Set PLL] button to set. **We do not advise you to change the default PLL unless you understand why to change.** The new value of PLL will take effect after reboot the machine system.

In part 3:

10. Restart/Reboot/Update/Rollback/Restore

As shown in Fig.5, the current mining software version is shown for user such as cgminer-IB3.5.5.

Check the [Restart] select box, click the [**Restart**] button to restart mining software.

Check the [Reboot] select box, click the [**Reboot**] button to reboot the whole system.

Check the [Update] select box, click the [**Update**] button to update the software version.

Check the [Rollback] select box, click the [**Rollback**] button to rollback the last version of mining software.

Check the [Restore] select box, click the [**Restore**] button to restore mining software default version and load factory default configuration.

3 FAQ

● **Can iBeLink DM11G miner be overclocked?**

No, ABSLUTELY CAN NOT. You may permanently damage the ASIC chips inside your miner with high probability if you perform any kind of overclock.

● **How to maintain iBeLink DM11G miner running at high efficiency?**

Do your best to keep this miner in a “COOL” environment. If you can maintain your mining facility room temperature under 33C, you should be able to achieve a good mining efficiency.

● **What does the “DIY problem identifying and fixing” mean?**

iBeLink DM11G is designed with modular philosophy. It is designed for the purpose of easy maintenance and problem fixing by yourself instead of sending all faulty miners back to manufacture. For most of the problems rose you should be able to debug and resolve on site by yourself. We have prepared serials short video of “how to” to help you perform various on-site DIY projects. We believe the iBeLink DM11G could provide you the best product ownership cost of your X11/Dash mining life.

● **Why my browser can't configure parameters of miner?**

It is recommended to use the Google Chrome browser to configure the parameters of miner.

● **What does bitmap Chip mean in the home page?**

When mining software starts, it will self test all ASIC chips at each blade, if the test result is normal, the bitmap values set to 1, otherwise to 0, corresponding to the chip position. Active bitmap values reflect the nonce return corresponding to chip position, and clear to 0 every 30 minutes.

- **Why my web shows ASIC chip count less than FF sometimes?**

Due to electrical instability or software driver abnormality, mining software fail to accurately detect all chip.

- **How to disable the Email warning?**

Empty Target Email text box, click the **[Set Warning Param]** button to disable the Email warn function.

- **Why the blades loss warning is not required during configuration?**

Blade abnormal loss influence hash rate substantially, so the corresponding Email warning function is enabled by default. After setting your warning mail server and target e-mail address to receive, with any abnormal loss of the blade, the mining software will automatically send emails and turn the corresponding LED to red, and it will wait for about 2 seconds and then restart mining software, tries to retrieve the lost blade. If warning email function is disabled, no warning email will be sent out, but mining software will still automatically restart to retrieve the lost blade.

- **Why mining software automatically restart?**

Mining software support self recovery from network or driver fault, with watchdog monitoring for the whole system, when an anomaly is detected, the mining software will automatically restart, trying to self-recover from the fault, so mining software auto restart is a normal phenomenon.

- **How to recover the mining software after crash?**

After the miner crashed, click the **[Config]** button and link to the web shown in Fig. 7, you can choose to update latest mining software version or roll back to last version or restore to default version and factory configuration.

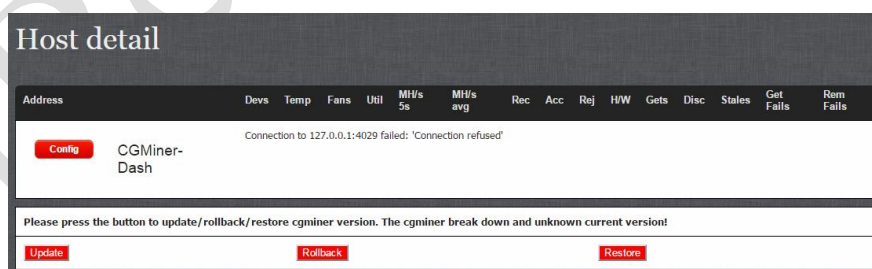


Fig. 7 Recover the miner after crash

- **Why hash rate statistical results are not the same in different mining pools?**

Mining software do hash rate statistics by returned nonce, different mining pools provide different difficulty, returned nonce count are not the same, leading to the hash rate statistical results are not the same.

- **Why my miner is not in the main mining pool but in reserve pool sometimes?**

In multiple mining pools configuration, mining software work in the highest priority of mining

pool, if the main mining pool connection failed, it will automatically switch to the available reserved backup mining pool to mine.

- **Popular X11 algorithm mine pool**

<https://www.nicehash.com>

<https://www2.coinmine.pl>

<https://www.multipool.us>

<https://www.coinotron.com>

<http://www.p2poolmining.us>

4 iBeLink DM11G Technical Support Info

<https://dashtalk.org/> support account: iBeLink_1

iBeLink Spec