

## iBeLink DM384M Specification

Version Update List

Time	Description	Version
2016-1-22	Initial version	1.0
2016-2-18	Fixed some bug	1.1
2016-3-2	Update pool list	1.2

### Component list

Index	Component	count	description
1	Main Box	1	Size 49x35x18 cm
2	Power cord	1	Power supply
3	Ethernet cable	1	For connecting to network
4	Specifications	1	This document

## Feature

- Hashrate: 384MHash  $\pm 10\%$ , power consumption:  $< 2\text{W}/\text{MHash}$
- Support all POW X11 algorithm encryption currency mining
- Support the Stratum protocol pool and Solo mining
- Provide web management platform, easy setup and large-scale deployment
- Web platform providing hash rate statistics, mining pool status monitor
- Support to restart mining software or restart the machine through the web platform
- Support power-on self-test function and identify single fault chip location
- Support hashing blade LED status indication, convenient for large scale mining operation
- Support main pool and multi backup pool settings, and automatic switching fault pool
- Support email warning for hash rate abnormal and nonce rejection rate abnormal, maximizing your miner's up time
- Support email warning for hashing blade lose, and retry for self-recovery
- Support self-recovery from network and drive faulty function with independent system watchdog

# Operation Guide

## State of miner machine

After linked to network and power up about 1 minute, the four LED lights at board of machine will turn from red to green one by one, indicating mining normally. At any computer on the same local network with the mining machine, enter the hostname (default name: iBeLink) in the browser (or IP), such as: <http://iBeLink/>, you can open the mining machine home page web management platform, shown in Fig. 1.

Address		Devs	Util	MH/s 5s	MH/s avg	Rec	Acc	Rej	H/W	Gets	Disc	Stales	Get Fails	Rem Fails
<a href="#">Config</a>	CGMiner-Dash	192 4/4	5.92 (0.75)	105.86 10.59 %	380.04 38.00 %	127	111 97.37 %	3 2.63 %	1 0.79 %	23	36 32.43 %	0 0.00 %	3 2.70 %	0 0.00 %

  

Dev	En	Run Time	PLL	Baud	Chips Map	Active Map	MH/s 5s	MH/s avg	Send	Rec	Acc	Rej	H/W	Share Diff	Util	Pool	
<a href="#">Modify</a>	DM0	<a href="#">Stop</a>	0days 0:18:45	110	115200	48 ffffffff	12 160891001194	25.11	86.15	46 0	26 0	22 95.65 %	1 4.35 %	0 0.00 %	0.40434478	1.17 (0.42)	0
<a href="#">Modify</a>	DM1	<a href="#">Stop</a>	0days 0:18:45	110	115200	48 ffffffff	24 4db27af89c16	38.71	105.43	44 0	33 0	27 96.43 %	1 3.57 %	0 0.00 %	0.40434478	1.44 (1.08)	0
<a href="#">Modify</a>	DM2	<a href="#">Stop</a>	0days 0:18:45	110	115200	48 ffffffff	4 480200000400	11.08	76.8	48 0	29 0	29 100.00 %	0 0.00 %	0 0.00 %	0.40434478	1.55 (0.99)	0
<a href="#">Modify</a>	DM3	<a href="#">Stop</a>	0days 0:18:45	110	115200	48 fbffffffff	28 677665ebe954	30.96	111.66	43 0	39 0	33 97.06 %	1 2.94 %	1 2.56 %	0.40434478	1.76 (1.1)	0

Fig. 1 iBeLink DM384M miner web management platform homepage

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

1. The current time, time zone, hostname, IP address, MAC.
2. Mining machine chip count, blade count, average nonce count per minute, 5S and average hashrate statistics, returned nonce count from chip, accept/reject/error nonce count and rate from the startup 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 20 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.

## Mining Configuration

1. Modify hostname: As Fig.1 show, 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
3. Click **[restart]** button to restart mining software
4. Pool configuration:

In Fig.1, click the **[Config]** button to link to the mining machine configuration page shown in Fig.2.

As shown in Fig.2, filling the mining pool site in the PoolURL input box, mining worker name in the PoolUser input box, mining worker password in the PoolPassword input box, click the **[Add Pool]** button to add the mining pool.

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

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

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

5. Email warning configuration

Mining machine provides Email warning of low hashrate and the high rejection rate of pool. Setup as following:

Filled the email server address, email user and password, click the **[Set Email server]** button to set the mail server,

Filled the target email, the low hash threshold value (MHash/s), the pool high rejection rate threshold (%), the warning duration time (minute) and the start warning time(minute), click **[Set warn Param]** button to set Email warn parameters. The time zone is used to correct time zone difference on the homepage showed current time.

Pool	Priority	URL	Gets	Diff	Accepts	Rejects	Discards	Stales	Get Fails	Rem fails
0	0	stratum+tcp://mine3.coinmine.pl:6090	148	0.282	1488 99.67 %	5 0.33 %	292 197.30 %	0 0.00 %	0 0.00 %	0 0.00 %

Pool URL: //mine3.coinmine.pl:6090 Pool User: dashminer.worker Pool Password: x **Add Pool**

Email Server: smtp.gmail.com Email User: ibelinkserver@gmail.com Email Password: \*\*\*\*\* **Set Email Server**

Email Target: dashminer@163.com Hash(MH): 300 Reject(%): 1

Duration Time(m): 10 Start Time(m): 20 Time Zone: 8 **Set Warn Param**

Already send Low hashrate warn Email count: 0 and High reject warn Email count: 0

Click the button to save configuration **Save Configuration**

To restart/quit CGminer or update/rollback CGminer version, click the checkbox, then press the button. Current version cgminer-3.5.5

**Restart**  **Quit**  **Update**  **Rollback**

Fig.2 Mining Machine configuration

6. Save configuration  
After all parameters are configured, click **[Save Configuration]** button to save the parameters.
7. Mining software restart/update  
As Fig.2 shows, the default mining software version:cgminer-3.5.5

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

Check the **[Quit]** selection box, click the **[Quit]** button to exit the mining software.

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

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

## 8. ASIC chip parameter configuration

Set	Min	Setting	Max
<input checked="" type="checkbox"/>	25	Set PLL: 110 MHz	115
<input checked="" type="checkbox"/>	115200	Set Baudrate: 230400 bps	921600
<input checked="" type="checkbox"/>	0	Reconfig Blade: 1	1

Apply Settings

Fig. 3 ASIC chip parameter configuration

In Fig.1, click the **[Modify]** button to link to the ASIC chip parameter configuration page shown in Fig.3.

Check the Set PLL selection box, filling the PLL parameter, and then click the **[ApplySettings]** button to apply the PLL parameter to the ASIC chip.

Check the Set Baudrate selection box, filling the baud rate parameter, and then click the **[Apply Settings]** button to apply the baud rate parameter to the ASIC chip.

Check the Reconfig Blade selection box, filling the parameter to 1, and then click the **[Apply Settings]** button to re-config the blade.

### Note

Don't forget to click the **[Save Configuration]** button shown in Fig.2, if you want to save the parameters of ASIC chip.

## FAQ

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

While mining software startup, 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 20 minutes.
- **Why sometimes web show all ASIC chips less than 192?**

Due to electrical instability or software driven abnormal, mining software fail to accurately detect all chip. As long as the detected chip number on the blade is greater than 32, the mining software will do the configuration as 48 chips for the blade, it does not affect the actual hash rate.
- **Whether the machine can be over clocked?**

It can be overclocked by modify the chip PLL parameters. But default PLL frequency is the ideal configuration of overall performance of the mining machine, so no need to overclock any more.
- **How to disable the Email warn?**

Empty Target Email text box, click the [\[Set Warn Param\]](#) button to disable the Email warn function.
- **Why the blade lose warning is not required to configure?**

Blade abnormal loss influence hash rate is very large, so the corresponding Email warning function is enabled by default. After setting your warning mail server and target e-mail address to receive, if blade abnormal loss, mining software 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 disabled, just no warning email sending out, but mining software automatically restart attempts to repair blade loss function is still valid.
- **Why mining software automatically restart?**

Mining software support self recovery from network fault and drive fault function, with watchdog monitoring for the whole system , when an anomaly is detected, the mining software will automatically restart, trying to self recovery from the fault, so mining software auto restart is a normal phenomenon.
- **Why hash rate statistical results are not same in different mining pools?**

Mining software do hash rate statistics by returned nonce, different mining pools provide different difficult, returned nonce count are not the same, leading to the hash rate statistical results are not the same. If low hash rate e-mail warning

function is enable, please pay attention to different mining pool configuration corresponding threshold value.

- **Why some mining pool rejection rate is very high?**

Due to hash rate of the iBeLink DM384M mining machines is very high, dozens of times of general GPU, some mining pools are unfriendly to ASIC mining machine, cause to very high rejection rate. If mining pool can set the difficulty, please appropriately raise the difficulty of mining, reduce nonce average quantity, so as to reduce the rejection rate, or switch to the ASIC friendly mining pool.

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

In multi mining pools configuration, mining software work in the highest priority of mining pool, if the main mine pool anomalous connection, it will automatically switch to available reserve mining pool to mine.

- **Popular X11 algorithm mine pool**

<https://www2.coinmine.pl>  
<https://www.nicehash.com>  
<https://miningpoolhub.com>  
<https://www.coinotron.com>  
<https://www.suchpool.pw>  
<https://www.multipool.us>  
<http://www.p2poolmining.us>  
<http://poolto.be>

## **Disclaimer**

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

## **iBeLink DM384M Technical Support Info**

- <https://dashtalk.org/> support account: iBeLink\_1