DG 1+ Server Manual V1.0.1

DG 1+ Server Manual



DG 1+ Server Manual Version 1.0.1 Oct. 2024

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Index

1.Overview

- 1.1 Server Components
- 1.2 Specifications

2.ElphaPexTool Guide

3.Server Configuration

3.1 Pool Configuration

4.Server Monitoring

5.Server Management

- 5.1 Firmware Version Check
- 5.2 System Upgrade
- 5.3 Password Change
- 5.4 Restoring Initial Settings

Regulations

1. Overview

The DG 1+ Server is the latest machine launched by ElphaPex with scrypt algorithm, which consists of a central hash boards box, four fans, a power supply and a main control box. All DG 1+ Servers are tested and configured prior to shipping to ensure easy set up.



Notes:

• Place the server and route cables properly to ensure proper working status of the server.

• Do not remove the server cover during normal operation. Ensure that the screws are tightly screwed and the cover is sealed.

• The server must be connected to an earthed mains socket-outlet. The socket-outlet shall be installed near the server and shall be easily accessible.

• Connect the two power sockets of the server to two power sockets at the same time. When powering off the device, ensure that all power inputs are disconnected.

- DO NOT remove any screws and cables tied on the product.
- This varies from server to server, the actual situation prevails.

1.1 Server Components

The main components and controller front panel of DG 1+ Servers are shown in the following figure:



Controller Board Interface:



FP-102 Power Supply:



Power Supply Socket

Notes:

• The power supply of the FP-102 is quite large, in order to avoid excessive cable current, the FP-102 adopts a dual socket interface designed to balance the transmission current.

1.2 Specifications

Version: 1.0.0

Product Glance	Value
Version	1.0.0
Model	DG 1+
Crypto Algorithm/Coins	Scrypt

Hashrate, MH/s	14400 ± 3%
power on wall@25°C, Watt	3950 ± 10%
power efficiency on wall @25°C, J/MH	0.27 ± 10%

Detailed Characteristics	Value						
Power Supply							
Power supply AC input voltage, Volt	200-240						
Power supply AC Input Frequency Range, Hz	47~63						
Power supply AC Input current, Amp	32						
Hardware Configuration							
Network connection mode	RJ45 Ethernet 10/100M						
Server Size (Length*Width*Height, w/o package), mm	432.8*196*287						
Server Size (Length*Width*Height, withpackage), mm	624*289*387						
Net weight, kg	18.3						
Gross weight, kg	20						
Environment Requirements							
Operation temperature, °C	0~40						
Storage temperature, °C	-20~70						
Operation humidity(non-condensing), RH	10~90%						

Notes:

- *Caution: Wrong input voltage may probably cause equipment damaged
- Max condition: temperature 40°C, altitude 0m

• Ensure that two power cables are used at the same time. The typical current of each cable is 16A.

• In the altitude range of 900 ~ 2000m, the maximum operating temperature drops by 1 $^{\circ}$ for every 300m increase.

2. ElphaPexTool Guide

Note: You can **SKIP** this step if you already know its IP address and can use website to configure the mining info.

1. Get software pack ElphaPexTool from www.elphapex.com

Notes:

- ElphaPexTool is now only available on windows platforms
- 2. Extract the file.



3. Open the software *ElphaPexTool.exe* and click on **[+]**, Add the corresponding network segment range

Elph	aPexTool	1.0.0 (2	0240301)															-	o ×
	Range	+	- Defa	ultIP	Scan	StopScan	Monito	r ConfigAl	1 ConfigSel	RebootAll	RebootSel	Upgrade	Export	Setting	RemoteCtrl				
						Pool1:			User:		Passwd:	Suffi	x: O IP	• Reser	we \bigcirc Clear				
						Poo12:			User:		Passwd:	Suffi	x: O IP	• Reser	ve OClear				
						Pool3:			User:		Passwd:	Suffi	x: OIP	• Reser	ve OClear				
						🛛 Only	display	matched mi	ners										
IP	Sta	te	Mode1	Wor	kMode	Realtime	ate Av	verageRate F	owerOutput	TempMax	TempPCB1 Te	mpPCB: Templ	PCB: Temp	PCB4 FanF	RPM FanInl	et FanIn	Let FanOu	t1∈ Fan	Jutle

4. Press the **Scan** button.

The information about servers in the current network segment is displayed in a list.

PRange + -	DefaultI	P Scan	StopScan M	Ionitor ConfigAl	1 ConfigSel Re	ebootAll RebootSe	1 Upgrade	Export	Setting Remot	eCtrl					
LAN: 192.168	0, 110-192, 1	168. 0. 255				1	00% Scan com	pleted. Total:	146 Matched: 2	2					
			Pool1:		User:	Passwd:	Suf	fix: O IP	Reserve O C	lear					
			Pop12:		User:	Passwd:	Suf	fix: O IP	Reserve O C	lear					
			Pop13:		liser:	Passwd:	Sut	rix: O IP C	Reserve O C	lear					
			Only di	isplay matched m	iners										
1	State	Model	WorkMode	RealtimeRate	AverageRate	PowerOutput	TempMax	TempPCB1	TempPCB2	TempPCB3	TempPCR4	FanRPM	FanInlet1	FanInlet2	FanOut
2. 168. 0. 11	0 Normal	DG1+	Normal	0	0	293	25	24/24	24/25	24/24	0/0	Normal	2520	2580	2520
2. 168. 0. 13	3 Normal	DG1+	Normal	0	0	171	20	19/20	19/20	19/20	19/20	Normal	2520	2520	2520

5. Double-click the selected line, this will open the browser to the server's web page.

- 6. Proceed to login using **root** for both the username and password.
- 7. In the **IP** section, you can assign a Static IP address (optional).
- 8. Enter the IP address, Subnet mask, gateway and DNS Server.
- 9. Click SAVE button.

Maker Waker Update Pessenod NTP Log MAC: Update Image: Config				
Mase Update Network Information Password MAC Infp MAC Infp Infp Infp Infp <		Dashboard		
iP j Update j Personod j MAC j MAC j 10210631106 j Submet Mask 25552593.0 Submet Mask Config Mater DG1 DG1	0	Miner		
Config Max Max 258 258 280 0 Config Max Max 258 258 280 0	P	IP		
Config DG1 DG1	5 0 0 0 0	Update Password NTP Log	Network Information Image: state of state o	
			235 255 255 0 Config MOR NAME DG1	
			firmwareVersion: DG1+_SW_V1.0.0, ipAddress: 192.168.31.106 , MAC: b8:4c:87:ef:a0.27 , firmwareType: Release	ESTORE

3. Server Configuration

3.1 Pool Configuration

1. Enter server web page, click **Miner** Section:

55	Dashboard
**	Miner
P	IP
C	Update
۲	Password
1	NTP
LOG	Log

Notes:

• Note that please DO NOT adjust the fan speed by yourself although it can be configured. The server itself will tune the fan speed automatically going along with the environment temperature changes.

2. Set the options according to the following table:

Option	Description
Mining Address	Enter your pool address

User Name	Your worker ID on the selected pool.
User Password	The password for your selected worker.

Notes:

- The DG 1+ server can set up three mining pools(pool 1 to pool 3) at the same time.
- The priority of pools 1 through 3 is reduced in turn, and when a pool with a higher priority is offline, a pool with a lower priority will be put into use
- 3. Click **SAVE** after the configuration.

4. Server Monitoring

1. Click dashboard to check the server status

Dashboard	Rate	Network	Fans	Temp	
IP	Dorr	al normal		normal	normal
Update					
Password	Real Time Hash Rate	Average Total Hash Rate	1.0	Total	
Log	0.00	0	0.9 0.8 0.7 0.6		
	Pool Rejection Rate	Miner Running Time	0.5		
	NaN%	0 d 0 h 0 m 0 s	0.1		
	Pool				
	index minerAddr minerN	ame minerPool Diff Priority	Accepted DiffA DiffR	Rejected Stale LSDiff	LSTime

Notes:

- When the temperature of the outlet reaches 85 $^{\circ}C$, the temperature control policy of the DG 1+ server will activate the high temperature protection and the mining process will stop
- 2. Monitor your server according to the descriptions in the following table:

Option	Description
chipNum	Number of chips detected in the chain.
Frequency	ASIC frequency.
rate	Network level hash rate of each hash board (MH/s).

theoryHash	Theoretical hash rate of each hash board (MH/s).
hashrate	Board level hash rate of each hash board (MH/s).
picTem	Onboard Temperature of each hash board(inlet/outlet) (°C).
chipState	Chip operating stateNormalAbnormal
SN	Series Number of each hash board

5. Server Management

5.1 Firmware Version Check

1. Enter the backstage web site of your server, find the firmware version on the bottom.

2. **firmwareVersion** displays the current release version your server uses. In the examples below, the server is using firmware version: **DG1+_SW_V1.0.0**

	Dashboard
**	Miner
	IP
C	Update
۲	Password
3	NTP
L05	Log

5.2 System Update

Notes:

• During the firmware upgrade, ensure that the server remains powered on and no other operations are conducted.

• The DG 1+ server provides support for firmware upgrades using the .img and .zip file extensions.

1. In Web site page, click **Update** to enter the firmware upgrade page.

2. Click **Firmware File** input field, select the **.img** or **.zip** firmware file, and then click **UPDATE**, The server will start the firmware update process.

	Dashboard	
2	Miner	
P	IP	
C	Update	
۲	Password	
6	NTP	
L06	Log	
		Primere File update ling (244.7 MB)
		firmwareVersion: DG1+_SW_V1.0.0 , ipAddress: 192.168.31.106 , MAC: b8:4c:87:efra0:27 , firmwareType: Release

3. When the update process is completed, the server will restart and it will turn to the **Dashboard** page.

5.3 Password Change

- 1. In Web site page, click **Password**.
- 2. Enter the current password and the new password, then click **SAVE**.

	Dashboard	
*	Miner	
	IP	
C	Update	
۲	Password	
1	NTP	
LOG	Log	Current_Password
		New_Password
		Confirm_Password
		SAVE
		firmwareVersion: DG1+_SW_V1.0.0. ipAddress: 192.168.31.106 , MAC: b8:4c:87.ef.a0.27 , firmwareType: Release

5.4 Restoring Initial Settings

Notes:

• The RESTORE operation will clear the pool Settings and restore the original password. Exercise caution when performing this operation.

1. In Web site page, Click **RESTORE** button.

	Darbhoard	
1	bashboard	
×0	Miner	
P	IP	
C	Update	
۲	Password	
8	NTP	
L05	Log	
		Current_Password
		New_Password
		Confirm_Password
		SAVE
		Gramman Jensing DC1 , DM U1 0.0 Johndonan 100 150 21 106 MAC kold 02 of a0.027 Gramman Tune Dalanan
		Initiwateversion. Do 17_3W_91.0.0, IpAdutess. 192.100.31.100, MAG. 004C07.et.a0.27, InitiWateType: Refease

Regulations:

Notice:

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.

(2). This device must accept any interference received, including interference that may cause undesired operation.

CAN ICES-003(A) / NMB-003(A)

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.