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BITMAIN

U3 Server User Guide



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1. The First Glance

U3 server is the third generation of USB server. The U3 server utilizes 4 of BITMAIN's latest generation BM 1382 chips in high quality, domed case. Setup consists of plugging in the USB and power cables and running server.



2. Accessories and Connection

2.1 Accessories

The accessories of U3 server including:

12V AC/DC power brick of 6A, but AC power line not included * 1

USB connection cable * 1

2.2 Connection

- a) Plug one side of 12V AC/DC power brick into U3, and plug the other side into AC input.
- b) Connect U3 server and the computer via the USB line.

Noted:

Connection order must be "a)" first, and then "b)". Order cannot be



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reversed.

To prevent the interruption of USB power supply, please ensure the computer is not in standby or sleep mode. Otherwise, the cgserver wouldn't find the server even make it ZOMBIE.

3. Install Driver

Click the link below:

https://www.bitmaintech.com/Support/AntMiner

20150107.rar Open sourced code for U3 Server, refer to the link below:

https://github.com/bitmaintech/cgminer

CP2102 Driver:

http://www.silabs.com/products/mcu/Pages/

USBtoUARTBridgeVCPDrivers .aspx

zadig:

http://zadig.akeo.ie/

>> Download <<	
Updated 2014.11.30:	
 Zadig for Windows Vista or later (4.9 MB) Zadig for Windows XP (5.1 MB) Other versions 	
System Requirements:	
Windows XP or later - 32 or 64 bit doesn't matter. If you are using Windows XP, please make sure to download the X	P version above.

1> Install CP210x_VCP driver.

2> Plug in U3 Server.

3> Open Zadig and click "Options -> List All Devices"



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evice	Opt	tions <u>H</u> elp	
		List All Devices	
	\checkmark	Ignore Hubs or Composite Parents	▼ Edit
Driver	✓ ✓	Create a Catalog File Sign Catalog & Install Autogenerated Certificate	More Information WinUS8 (libusbx)
USB ID		Advanced Mode Log Verbosity	libusb-win32 libusbK WinLISB (Microsoft)

4> Select CP2102 USB to UART Bridge Controller, and then click "Replace

Driver"

CP2102	USB to UART Bridge Contr	oller	T Edi
Driver	silabser (v6.7.0.0)	WinUSB (v6.1.7600.16385)	More Information WinUSB (libusb)
USB ID	10C4 EA60	Replace Driver	libusb-win32
WCID ?	×		WinUSB (Microsoft)

XP:

a. Install CP210x_VCP driver.





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b. zadig

田 - 磁盘驱动器 日 - ダ 端口 (COM 和 LPT) - ダ 端口 (COM 和 LPT) - ダ Silicon Labs CP210x USB to UART Bridge (COM5) - ダ 打印机端口 (LPT1) - ダ 通讯端口 (COM1) - ダ 通讯端口 (COM2)	
fadig Desire Options Hole	×
Silicon Labs CP210x USB to UART Bridge	Edit
Driver silabser (v6.7.0.0) WinUSB (v6.1.7600.16385)	More Information WinUSB (libusbx) libusb-win32 libusbK WinUSB (Microsoft)

c.

	vay MPEG-II Transport Stream C rial Bus devices abs CP210x USB to UART Bridge 和 LPT) 嵩口 (LPT1) 그 (COM1)	ards (COM5)		Ĭ
Zadig				_ 🗆 X
Device Options Help				
Drive	er Installation			
USB 人体学输	The driver was installed suc	cessfully.		Edit
Driver Hidu				formation
USB ID 046E			Close	(libusbx) 132
WCID ? 🔀			WinUSE	(Microsoft)
4 devices found.				Zadig v2.0.1.160

WIN 7:

a. Install CP210x_VCP driver.



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c.



Win 8:

a. Install CP210x_VCP driver





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Zadig 2.1.1.674

b. zadig

c.

 → 设备管理器 → 存储 → 磁盘管理 → 服务和应用程序 	 ▶ 図 传感器 ▶ @ 使感器 ▶ ☆ 存储控制器 ▶ 录 打印队列 ▶ 录 电池 ▲ 学 端口 (COM 和 LPT) ⑦ 端口 (COM 和 LPT) ⑦ Silicon Labs CP210x USB to U ▶ ● 计算机 ▲ ● 计算机 	2 ART Bridge (COM7)
Z	Zadig	- 🗆 🗙
Device Options Help CP2102 USB to UART Bridge Cor	ntroller	✓ □ Edit
Driver silabser (v6.7.0.0) USB ID 10C4 EA60 WCID ²	WinUSB (v6. 1. 7600. 16385) Replace Driver	More Information <u>WinUSB (libusb)</u> <u>libusb-win32</u> <u>libusbK</u> <u>WinUSB (Microsoft)</u>
 ▷ (▲) 仕労计划程序 ▶ (▲) 年待音看器 ▶ (№) 共享文件夹 ▶ (№) 性能 ④) 设备管理器 ▲ (□) 存储 (∞) 磁盘管理 ▶ (□) 服务和应用程序 	 ▶ 1%% 八体字細八设审 ▶ 1%% 八体字細八设审 ▶ 1% 软件设备 ▶ 1% 缺标和其他指针设备 ▶ 1% 競标和其他指针设备 ▶ 1% 通用串行总线控制器 ■ 通用串行总线设备 ■ CP2102 USB to UART Bridge ▶ 1% 图像设备 ▶ 2% 网络适配器 ▶ 3% 网络适配器 ▶ 3% 医体沿器 	Controller
Device Opt		
CP2102 USB Driver Win USB ID 10C	Driver Installation iver was installed successfully. Clos	e 32
WCID ?	Reinstall Driver	libusbK WinUSB (Microsoft)

5> Run it following the below Click it at first, cominer

8 devices found.

bmsc-options 115200:0.54 -o 50.31.149.57:3333 -u server -p 123 --bmsc-voltage 0830 --bmsc-freq 0982 --startdiff 6 some pools: p2p.antpool.com:25; solo.antpool.com:3333



Noted:

- a) Please note that "115200" stands for the "Baud Rate", and "0.65" means "timeout". It changes with Freq you set to guarantee the speed. Details see chart 2.
- b) '--startdiff 6' is to make the low hash rate servers getting a proper difficulty asap, which is still under developing by Antpool
- c) Core Voltage can be changed by setting the figure "0830"
 Operating frequency can be changed by setting the figure "0982"

4. Core voltage & Operating Frequency Adjustments

Core voltage and operating frequency can be adjusted by software.

1 > Core Voltage can be changed by setting the figure "0800".

The voltage varieties from 0.725 to 0.85v, 0.75v by default, and min unit is 0.005v.Higher voltage supports higher Freq. As 0.75v,U3 can work not more than 225M.

Insert Value	Voltage (V)
0725	0.725
0730	0.730
0735	0.735
0740	0.740
0745	0.745
0750	0.750
0755	0.755
0760	0.760
0765	0.765
0770	0.770
0775	0.775
0780	0.780
0785	0.785
0790	0.790
0795	0.795

Please refer below chart:



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0800	0.800
0805	0.805
0810	0.810
0815	0.815
0820	0.820
0825	0.825
0830	0.830
0835	0.835
0840	0.840
0845	0.845
0850	0.850

Chart 1

2> Operating frequency can be changed by setting the figure "0882". Please refer below chart:

Insert Value	Frequency (M)	Prefer timeout (100 ms)	
0783	100.00	1.36	
0983	125.00	1.09	
0B83	150.00	0.91	
0D83	175.00	0.78	
0F03	193.75	0.71	
1F07	196.88	0.69	
0782	200.00	0.68	
1006	206.25	0.66	
1086	212.50	0.64	
1106	218.75	0.62	
0882	225.00	0.61	
1286	237.50	0.57	
1306	243.75	0.55	

Eg. –bms-coptions 115200:0.57 --bmsc-freq 1286



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0.54

Regulation:

0982

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.

Chart 2

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.

	~	設備名稱:		, 型號:		
	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	0
其他線材	-	0	0	0	0	0
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. "〇"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						

台湾 ROHS: