

## **BullSequana Edge: caution with Nvidia card A2**

To use the **A2 model Nvidia GPU PCI card** with the **BullSequana Edge**, at least, the TS version must be the last, **TS 018.03** from February 2022 (or a newer).

Looking for the **Firmware version** of the BMC, on the **Overview** (Home) web page at bottom right, you should find it. If it is **53.01.001**, you are well with **TS 018.03**.

OpenBMC						(8) super
EDGE2-00106 129.182.203.116		Server health > Server health >	Server power > <b>Running</b>	BMC Date a Mar 23,	and Time 2022 7:46:22 AM GMT+1	Refresh
<ul><li>∠ Overview</li><li>➡ Health</li></ul>	EDGE2-00106	2				
Event log Hardware status Sensors	Server information	MANUFACTURER			<b>BMC time</b> Mar 23, 2022 7:51:30 AM	GMT+1
😂 Control	BullSequana Edge	BULL BIOS VER	SION		Turn on server LED	on
Configuration	XAN-SE2-00106	BIOS_SKD080.18.02.003			Serial over LAN console	>
Access	BMC information				Edit network settings	>
	HOSTNAME	ETH0 MAG	ADDRESS			
	EDGE2-00106	08:00:	08:00:38:BF:BA:48			
	ETH0 IP ADDRESSES	ETH1 MAG	ADDRESS			
	IPv4: 138.128.128.82	08:00:	8:00:38:BF:BA:49			
	ETH1 IP ADDRESSES	FIRMWAR	E VERSION			
	IPv4: 129.182.203.116	53.01.	0001			

The **BullSequana Edge** are delivered with a **Nvidia** GPU PCI card. The last delivered can be with a **A2** model from **Nvidia** 

With **53.01.001** BMC version, you can verify the model of the **Nvidia** GPU card looking in **Health > Hardware status** web page for **PCI\_0** or/and **PCI\_1** at bottom: The DEVICE ID and SUBSYSTEM DEV ID are **NVIDIA GPU A2**.

OpenBMC					(S supe
EDGE2-00106 129.182.203.116		Server health > Good	Server power > Running	BMC Date and Time Mar 23, 2022 7:46:22 AM GMT+1	Refre
<mark>∼*</mark> Overview	HDD_0				~
🔁 Health	HDD_1				~
Event log Hardware status	PCI_0				^
Sensors	DEVICE ID	PORT NU	MBER	PORT SPEED	
Control	NVIDIA GPU A2	Root I PRESENT	Port 2A	8 Gbps PRETTY NAME	
Onfiguration	8x SUBSYSTEM DEV ID	Yes SUBSYST	EM VID	PCI_0 VENDOR ID	
Access	NVIDIA GPU A2	NVIDIA	L.	NVIDIA	
	PCI_1				$\checkmark$
	Collect BMC logs		,		
	Download log file				

Note: At the bottom of this web page, you have the buttons to take a dump (**BMC Logs**) of your EDGE.



Another prerequisite exits, if your **A2** card is using the Firmware version **94.07.5B.00.55**, a **BIOS** parameter must be changed:

Advanced > Socket Configuration > Common RefCode Configuration > MMIO High Granularity Size

You have to customize it from 16G to 256G.

If the **BIOS** change is not made, the **A2** card will not being accepted.

Creating a **nvidia-bug-report.log**, you will find in it an error of the following type:

NVRM: This PCI I/O region assigned to your NVIDIA device is invalid: NVRM: BAR1 is 0M @ 0x0 (PCI:0000:17:00.0) NVRM: The NVIDIA probe routine failed for 1 device(s). NVRM: None of the NVIDIA devices were initialized.

To change the **BIOS** parameters, you must stop the Host and then change the **BOOT SETTING OVERRIDE** to set it to **BiosSetup** and then use the **Save** button:

OpenBMC					(8) super	
EDGE2-00106 129.182.203.11	6	Server health > Good	Server power >	BMC Date and Time Mar 23, 2022 8:19:48 AM GMT+1	Refresh	
Cverview	Server powe	er operatio	ons			
🔁 Health						
Event log Hardware status	Current status		Last powe	roperation at Mar 8, 2022 11:45:46 AM	GMT+1	
Sensors	EDGE2-00106 - 12	0 182 203 116		0	Off	
🔁 Control	20022-00100 - 12			Ū		
Server power operations						
Manage power usage	Host OS boot setting	gs Ope	rations			
Server LED						
Reboot BMC		Pot	weron			
Senal over LAN console	BOOT SETTING OVERRIDE	10				
KVM	BiosSetup	-				
Intrusion Detection						
Security Settings	Enable one time b	oot				
Virtual Media	TPM REQUIRED POLICY					Then do the
Configuration	Enable to ensure the					men do trie
Access	system only boots whe the TPM is functional.	n				Power on
	Off		-			
	Cancel Sav	ve Marine				

You can follow the start of the system looking the **Control > Serial over LAN console** till being on the **BIOS** setup (InsideH20 Setup Utility)



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Then use the **Control > KVM** web page:

Ope	enBMC					© super
	EDGE2-00106 129.182.203.116		Server health > Good	Server power >  Ourreachable	BMC Date and Time Mar 23, 2022 8:19:48 AM GMT+1	Refresh
~	Overview	IP KVM				
Ð	. Health					
	Event log		InsydeH20 Si	etup Utility	Rey	. 5.0
	Hardware status	Hain Advanced Security Power Boot	Exit			_
	Sensors	InsydeH20 Version Processor Type	BIOS_SKD080.18.02.00 Intel(R) Xeon(R) D-2		Select the current default language i	ised
-	Control	System Bus Speed	100 MHz	16311 CPU 8 2.200H2	by the InsydeH20.	
	Server power operations	System Memory Speed Cache RAM	2400 MHz 16384 KB			
	Manage power usage	Total Memory	65536 MB			
	Server LED	Language System Tine	<english> [07:15:47]</english>			
	Reboot BMC	System Date	[03/23/2022]			
	Serial over LAN console					
	KVM					
	Intrusion Detection					
	Security Settings					
	Virtual Media					
ණ	Configuration					
2	Access					

You will work now inside the **KVM** window. Use the right arrow key to go on **Advanced** tab and use the down arrow to be on **Socket Configuration**:

Main Advanced Security Power Boot Exit	ility Rev. 5.
PPlatform Information >Boot Configuration >Peripheral Configuration >ACPI Table/Features Control >System Event Log >Debug Configuration >Docket Configuration >PEC Configuration >PEC Configuration >PEC Configuration >APEI Configuration >APEI Configuration >APEI Configuration >APEI Configuration >APEI Configuration >APEI Configuration >APEI Configuration >APEI State	Displays and provides option to change the Socket Settings

Do Enter and use the down arrow to be on Common RefCode Configuration:

Advanced Insyde#20	Setup Utility Rev. 5.0
<ul> <li>▶Processor Configuration</li> <li>▶Common RefCode Configuration</li> <li>▶UPI Configuration</li> <li>▶Hemory Configuration</li> <li>▶100 Configuration</li> <li>▶100 Configuration</li> <li>▶Advanced Power Management Configuration</li> </ul>	Displays and provides option to change the Common RefCode Settings



Again, do **Enter** and go down to be on **MMIO High Granularity Size** (You should have the default value **16G**)

Common RefCode Configuration         HMCFG Size       <256H>         H110 High Base       <561>         H110 High Granularity Size       <166>         1soc Mode <auto>         Numa       <enabled>         Publish SRAT       <enabled>         SRAT Henory Hot Plug       <disabled>         SRAT OPU Hot Plug       <disabled>         Serial Debug Message Level       <hininum>         Trace Messages       <disabled>         Training Messages       <disabl< td="">         IG       46         16       646         2566       10246</disabl<></disabled></hininum></disabled></disabled></enabled></enabled></auto>	Selects the allocation size used to assign mmich resources. Total mmich space can be up to 32xgranularity. Per stack mmich resource assignments are multiples of the granularity where 1 unit per stack is the default allocation.

With the last Firmware on **Nvidia** card, you must choose the **256G** value here.

So do **Enter** and go down to select **256G** and do **Enter** to validate and then do **F10** to Save and Exit



And accept with Enter (Yes)





Note about BMC **53.01.001** delivered in **TS 018.03** you can see the following errors in the **Health > Event log**:

## BMC booted from backup flash.Only limited operations allowed

	#184	LOW	INFORMATIONAL	Mar	15,	2022	1:54:51	PM	GMT+1	~
	BMC b	ooted from bac	ckup flash.Only limited operations allowed							

## But it is a false Event!

This message should occur only if you push the **REC**overy button!

The good Event seen when the BMC has booted should be:

## BMC booted from main flash

#185 LOW INFORMATIONAL	Mar 15, 2022 2:30:30 PM GMT+1	$\checkmark$
BMC booted from main flash		

..... End of Document .....