

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 > Running	BMC Date a Mar 23,	and Time 2022 7:46:22 AM GMT+1	Refresh		
∠ Overview➡ Health	EDGE2-00106	2						
Event log Hardware status Sensors	Server information	MANUFACTURER BULL BIOS VERSION BIOS_SKD080.18.02.003			BMC time Mar 23, 2022 7:51:30 AM	GMT+1		
Control	BullSequana Edge				Turn on server LED	ou		
Onfiguration	XAN-SE2-00106				Serial over LAN console	>		
Access	BMC information				Edit network settings	>		
	HOSTNAME	ETH0 MAG	ADDRESS					
	EDGE2-00106	08:00:38:BF:BA:48						
	ETH0 IP ADDRESSES	ETH1 MAG	ADDRESS					
	IPv4: 138.128.128.82	08:00:	08:00:38: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					& super
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
∠ [*] Overview	HDD_0				~
🔁 Health	HDD_1				~
Event log Hardware status	PCI_0				^
Sensors	DEVICE ID	PORT NU	MBER	PORT SPEED	
Control	NVIDIA GPU A2 PORT WIDTH	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				~
	Collect BMC logs Create log file 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					⊗ super	
EDGE2-00106		Server health > Good	Server power > Off	BMC Date and Time Mar 23, 2022 8:19:48 AM CMT+1	Refresh	
Overview	Server powe	er operatio	ons			
E Health						
Event log Hardware status	Current status		Last power	roperation at Max 8, 2022 11:45:46 AM	GMT+1	
Sensors	EDGE2-00106 - 12	9.182.203.116		0	Off	
Control				-		
Server power operations						
Manage power usage	Host OS boot setting	is Oper	ations			
Server LED						
Reboot BMC		Pov	veron			
Senal over LAN console	BOOT SETTING OVERRIDE					
KVM	BiosSetup	-				
Intrusion Detection	Enable one time by	had				
Security Settings		JUL				
Virtual Media	TPM REQUIRED POLICY					Then do the
Ornfiguration	Enable to ensure the					
Access	system only boots when the TPM is functional.	n				Power on
	Off Off					
	Cancel Sav	/e				

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



Page 2 sur 5



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

Ope	enBMC					© super
(0	EDGE2-00106 129.182.203.116		Server health > Server health >	Server power > Unreachable 	BMC Date and Time Mar 23, 2022 8:19:48 AM GMT+1	Refresh
~	Overview	IP KVM				
Ð	. Health					
	Event log		InsydeH20 Se	etup Utility	Re	. 5.0
	Hardware status	Hain Advanced Security Power Boot	Exit			
	Sensors	InsydeH20 Version	BIOS_SKD080.18.02.00	3 19217 CDU 0 0 00CU-	Select the current default language i	used
-	Control	System Bus Speed	100 MHz	10311 CPU 8 2.200HZ	by the insydenzo.	
	Server power operations	System Memory Speed Cache RAM	2400 MHz 16384 KB			
	Manage power usage	Total Memory	65536 MB			
	Server LED	System Time	[07:15:47]			
	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**:

	InsydeH20 Setup Utility Rev.	5.0
Main Advanced Security Power Boot Exit		
 Platform information Pact Configuration Preripheral Configuration PVideo Configuration ACP1 Table/Features Control System Event Log Pobbug Configuration PSocket Configuration PAch Configuration PAC Configuration PAC Configuration PHC Configuration PH2 Offiguration PH2 Configuration PAPEI Configuration PAPEI Configuration PAPEI Configuration PAPEI Configuration PH2 Event Log Config Manager PConsole Redirection PH20Uve Configuration PS10 AST2500/2520 PNVH Express Information 	Displays and provides option to change the Socket Settings	

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

	InsydeH20 Setup Utility	Rev. 5.0
Advanced		
 ▶Processor Configuration ▶Common RefCode Configuration ▶UPI Configuration ▶Hemory Configuration ▶110 Configuration ▶110 Configuration ▶Advanced Power Management Configuration 		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> Isoc 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 4G 10G 64G 256G 1024G</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