

SKY-8134S-11 QSG



ICVG

2/7th, 2024

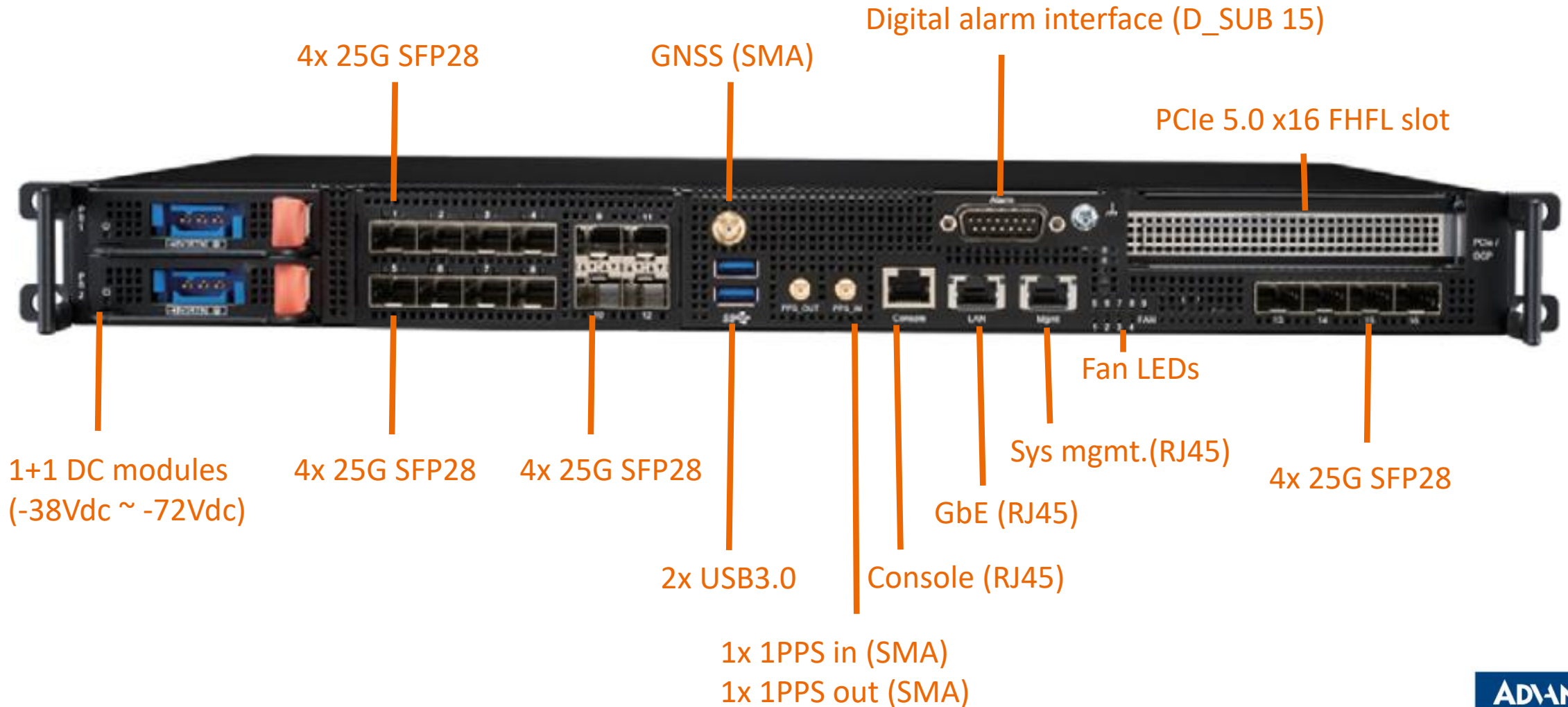
History

Version	Date	Handled by	Note
Draft	2023/1/11	Alan.Ku	
V01	2023/1/17	Alan.Ku	first publishing
V02	2023/2/7	Alan.Ku	Update p12, 21, 23~25
V03	2024/2/4	Alan.Ku	Update p4, 7, 10, 18, 19, 21

Agenda

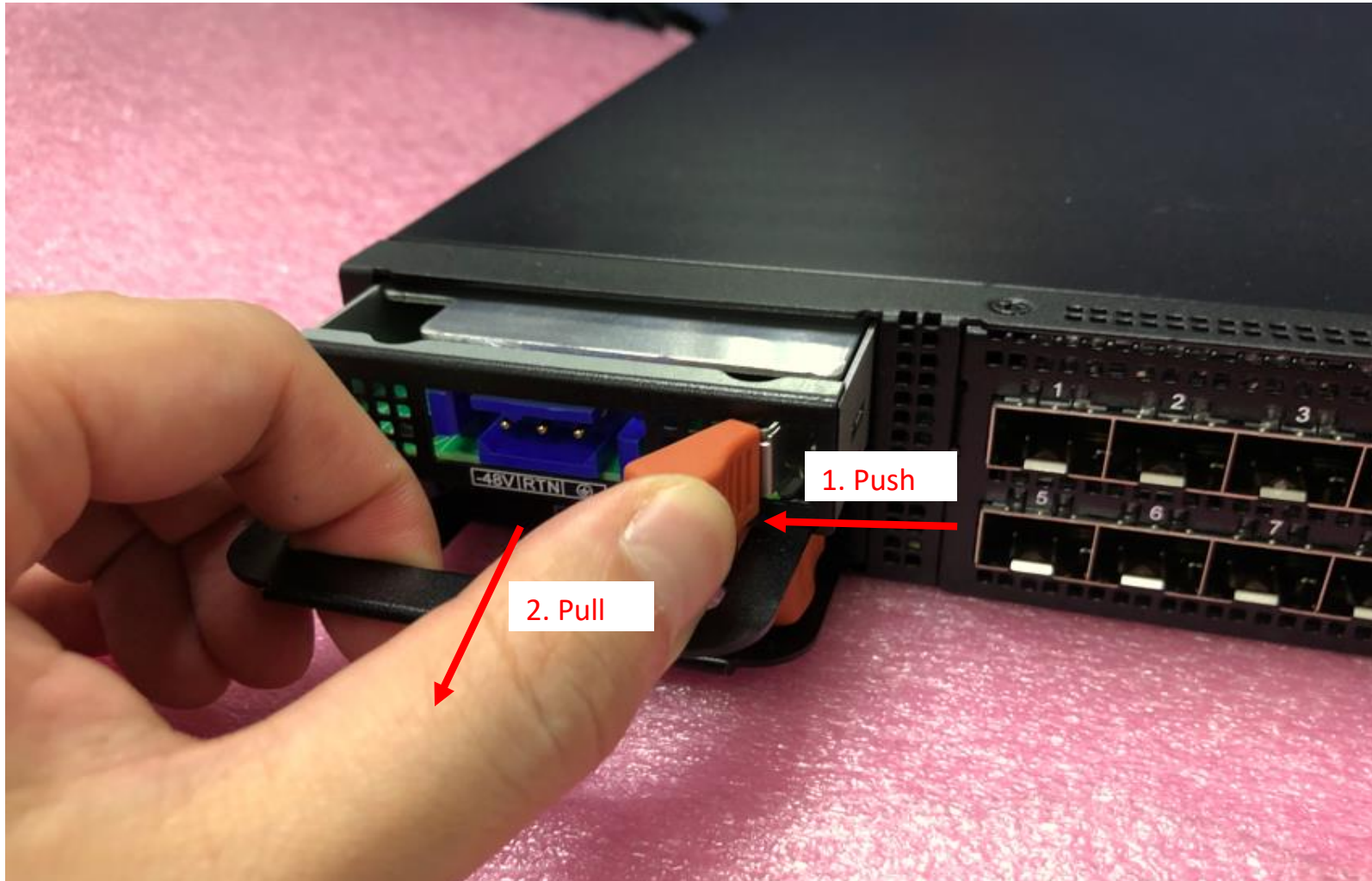
- Server Front Side
- Server Rear Side
- DIMMs Population
- Access the device via console
- WebUI Access
- OS installation

Server Front Side [1/5] – Overview



Server Front Side [2/5]-DC PSU Swap

- ❑ Unlock PSU by step 1 and remove it by step 2.



Server Front Side [3/5]- Remove PCIe Cage

- ❑ Step #1 Loose screws on rear

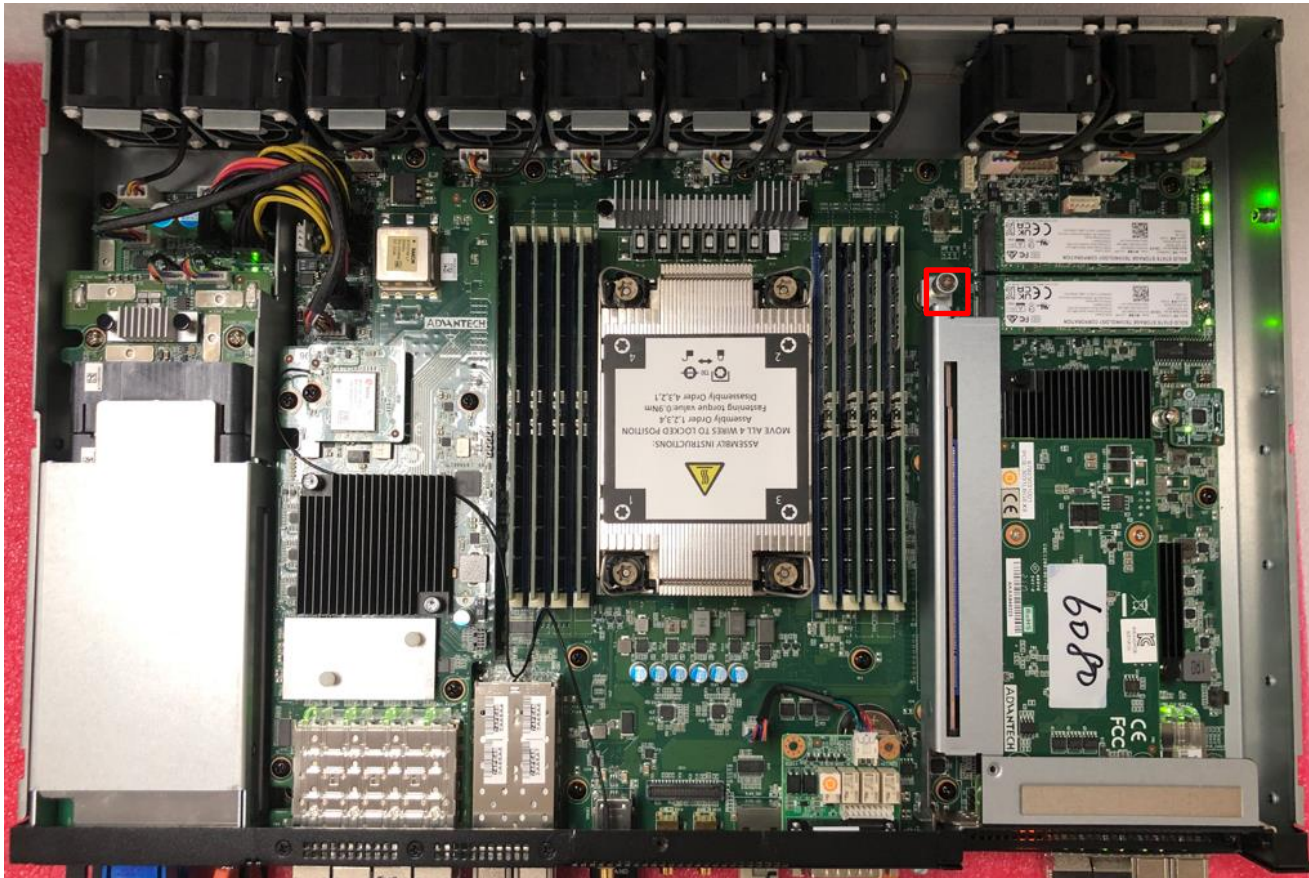


- ❑ Step #2 Loose the screw on top



Server Front Side [3/5]- Remove PCIe Cage

- ❑ Step #3 Loose the screw on following position



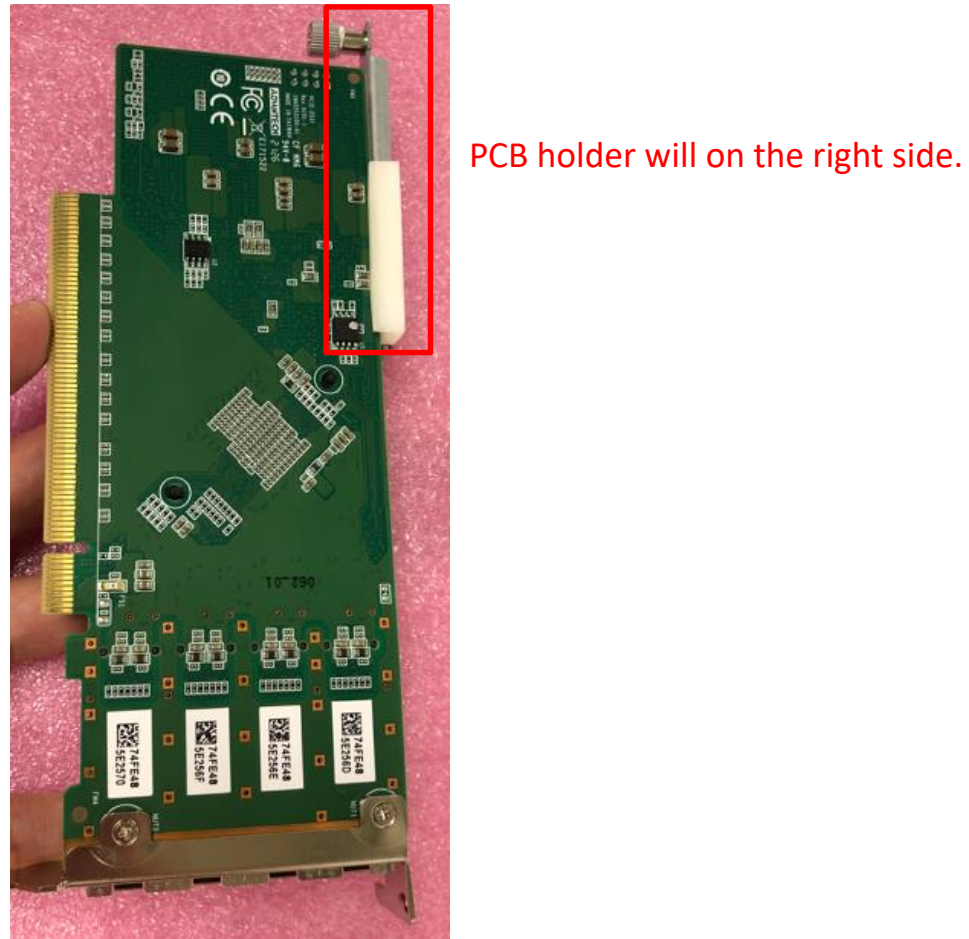
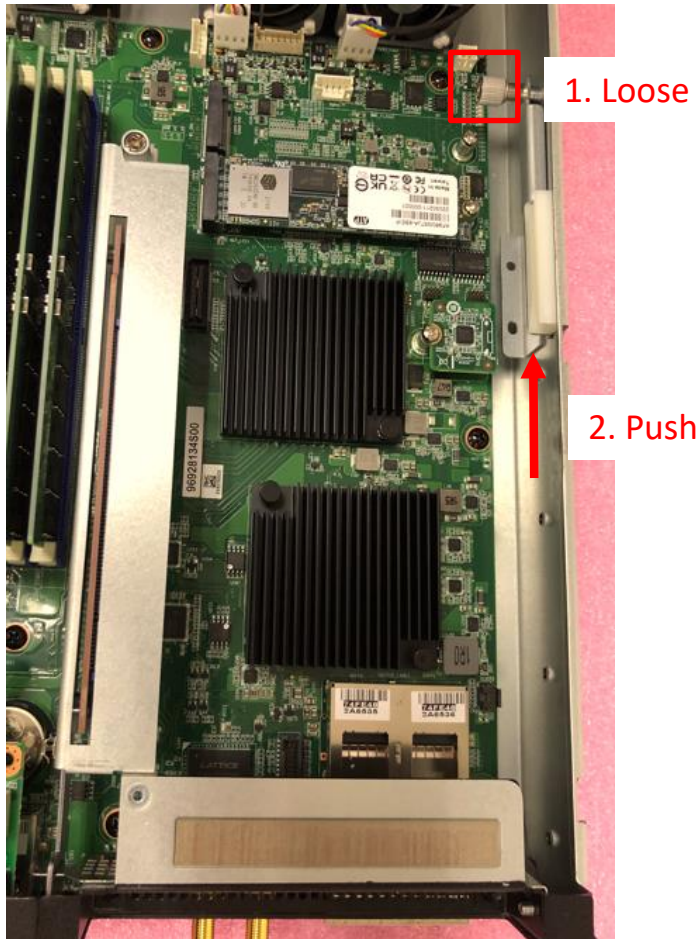
Server Front Side [3/5]- Remove PCIe Cage

- Step #4 Slightly pull up and remove PCIe cage



Server Front Side [3/5]- Remove PCIe Cage

- ❑ Step #5 For wide width PCIe card, install cage and PCB holder at the same time.

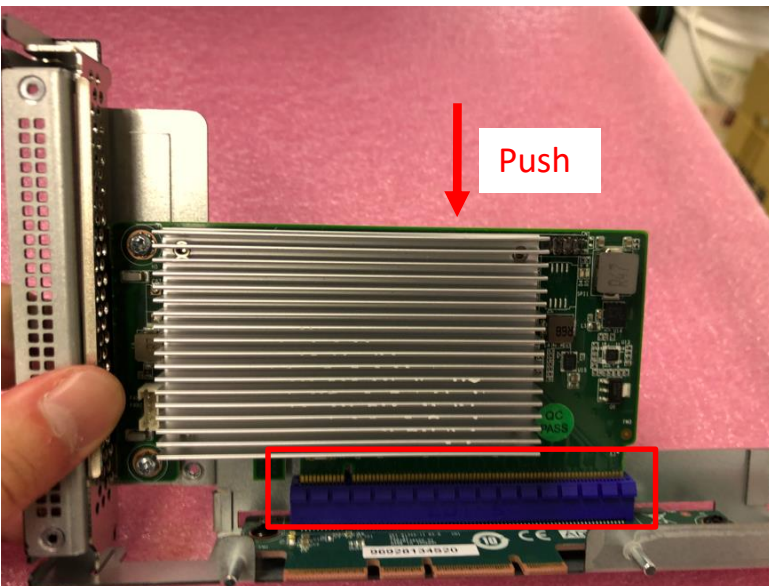


Server Front Side [4/5]- Insert PCIe card

- ❑ Step #1 Loose the screw and remove PCIe dummy

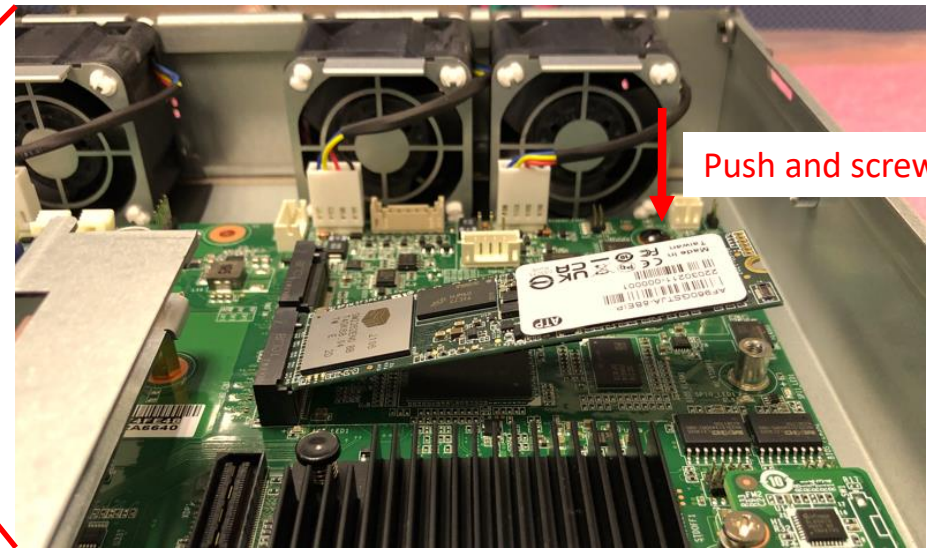
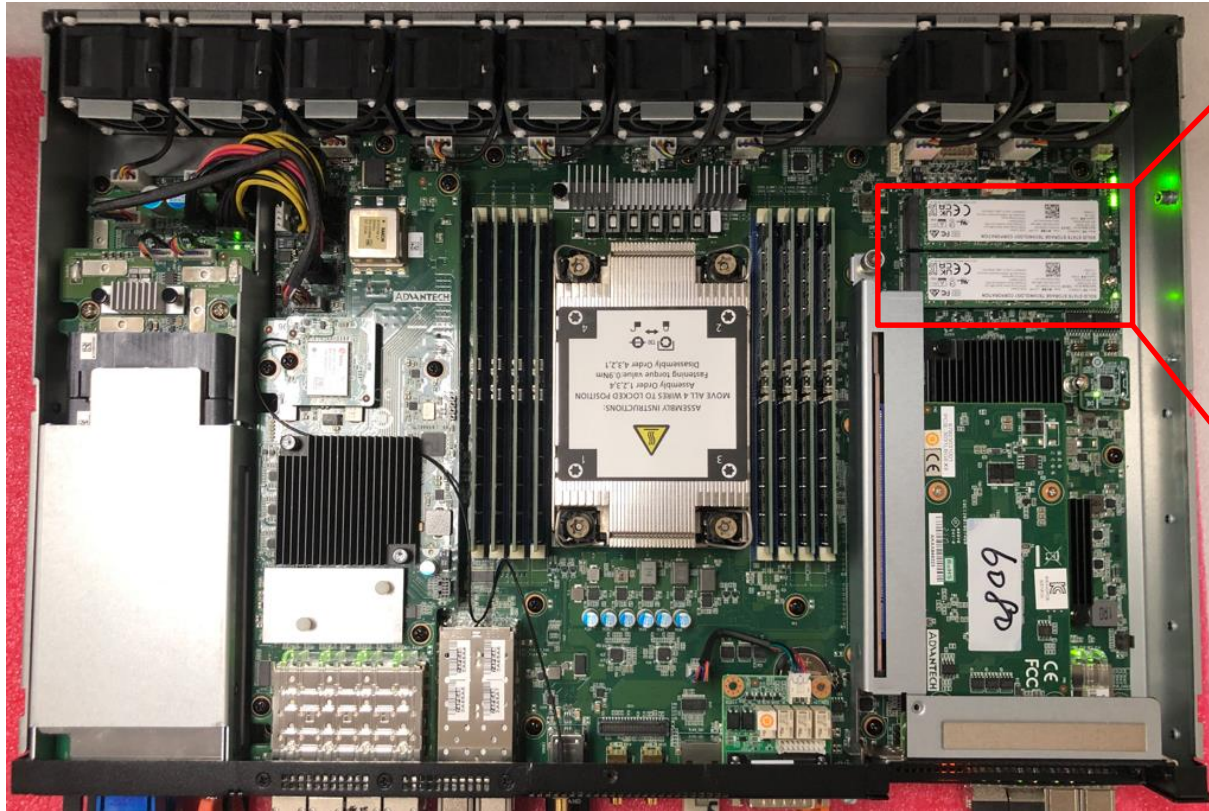


- ❑ Step #2 Align golden finger to the slot, push the card to end.



Server Front Side [5/5]-Storage M.2

- ❑ Insert 2280 M.2 storage, push down and screw it up



Server Rear Side

❑ System rear view.

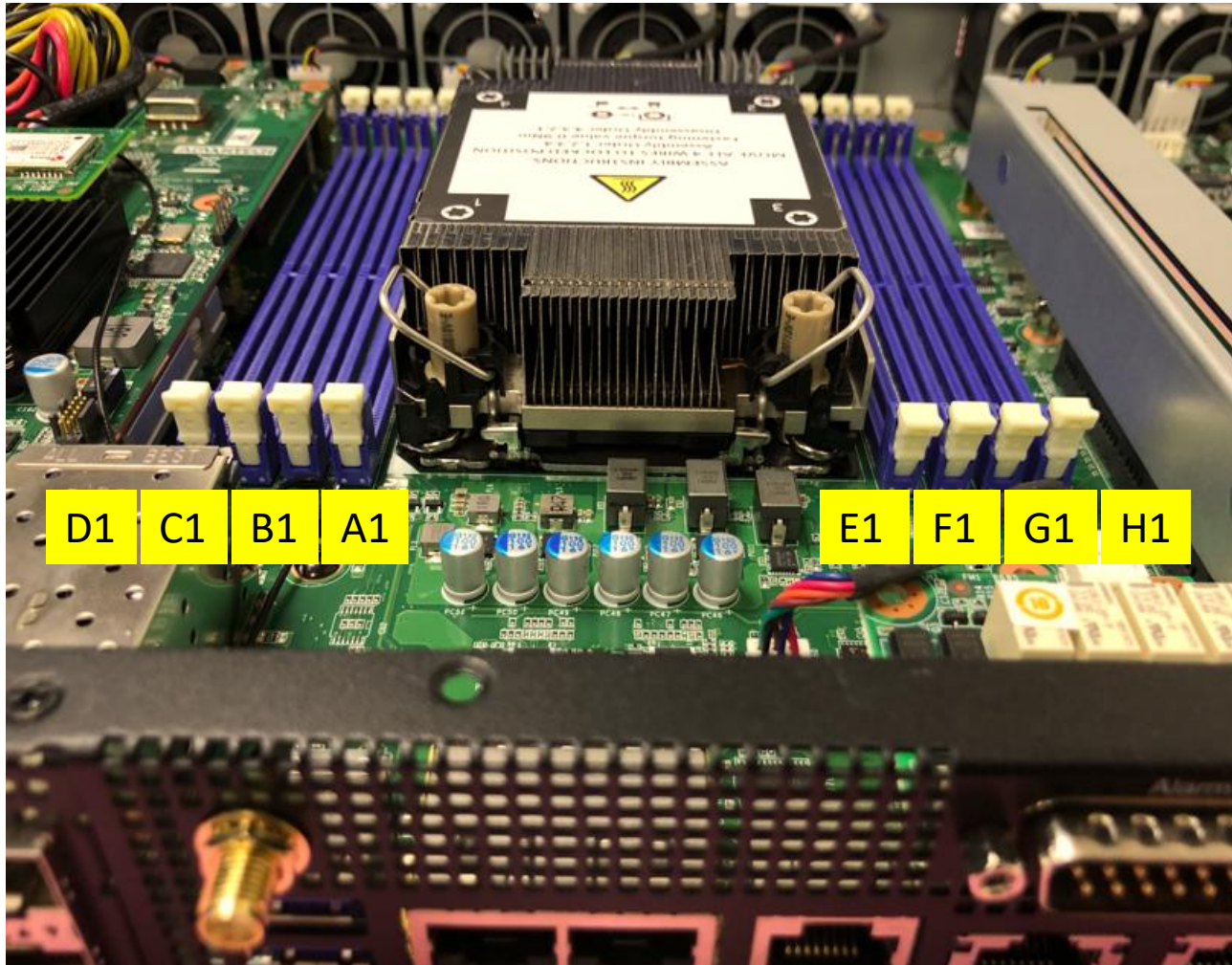


❑ FAN physical locations and its naming.

	PCIe	PCIe	CPU	CPU	CPU	Mezz Card	Mezz Card	PW	PW
SYS front LEDs	#9	#8	#7	#6	#5	#4	#3	#2	#1
BMC Sensor	RISER_FAN2	RISER_FAN1	CPU_FAN3	CPU_FAN2	CPU_FAN1	MEZZ_FAN2	MEZZ_FAN1	PSU_FAN2	PSU_FAN1

DIMMs Population [1/4]- Notes

PCB DIMM slot printing as below.



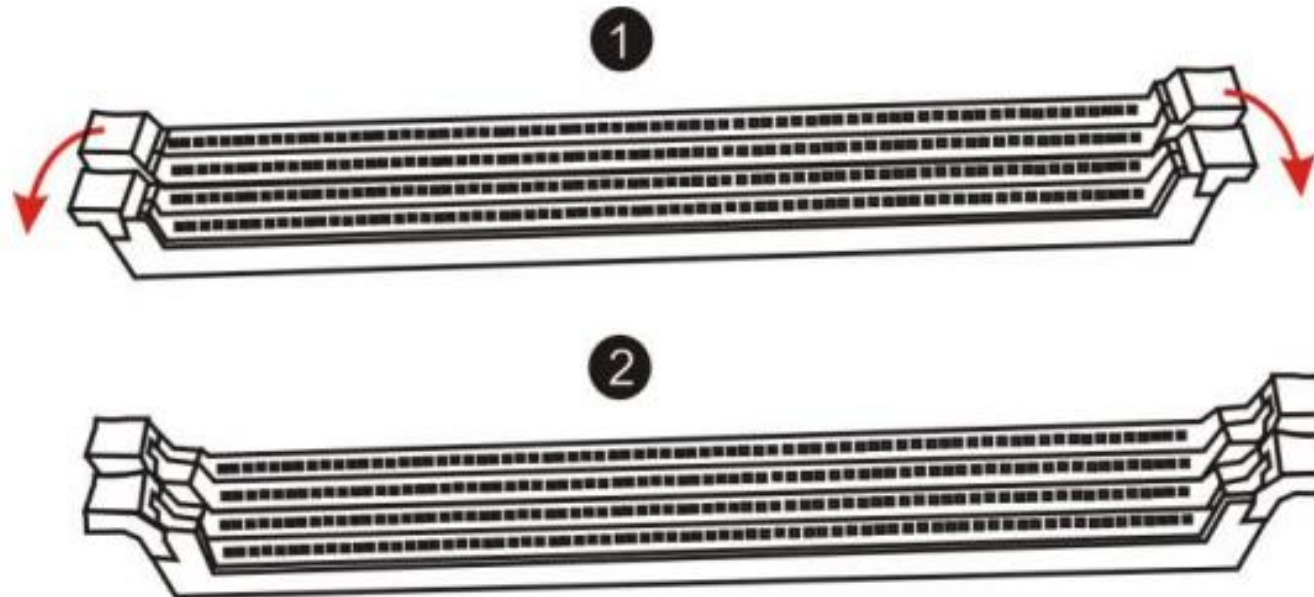
DIMMs Population [1/4]- Notes

Refer table below to populate DIMMs on Sapphire Rapids platforms.

IMC#	iMC3				iMC2					iMC0				iMC1			
	Chan 1 (7/H)		Chan 0 (6/G)		Chan 1 (5/F)		Chan 0 (4/E)			Chan 0 (0/A)		Chan 1 (1/B)		Chan 0 (2/C)		Chan 1 (3/D)	
DDR5	H1		G1		F1		E1			A1		B1		C1		D1	
	Slot0	Slot1	Slot0	Slot1	Slot0	Slot1	Slot0	Slot1		Slot1	Slot0	Slot1	Slot0	Slot1	Slot0	Slot1	
1+0									C P U		DDR5						
								DDR5					DDR5				
2+0					DDR5								DDR5				
								DDR5			DDR5					DDR5	
4+0								DDR5			DDR5					DDR5	
					DDR5			DDR5			DDR5					DDR5	
6+0					DDR5			DDR5			DDR5					DDR5	
	DDR5		DDR5					DDR5			DDR5		DDR5			DDR5	
	DDR5				DDR5			DDR5					DDR5			DDR5	
8+0	DDR5		DDR5		DDR5			DDR5			DDR5		DDR5			DDR5	
	DDR5				DDR5			DDR5			DDR5		DDR5		DDR5		DDR5
12+0	DDR5		DDR5	DDR5	DDR5			DDR5			DDR5	DDR5	DDR5	DDR5	DDR5		DDR5
	DDR5	DDR5	DDR5		DDR5	DDR5		DDR5			DDR5	DDR5	DDR5		DDR5	DDR5	DDR5
16+0	DDR5	DDR5	DDR5	DDR5	DDR5	DDR5		DDR5			DDR5	DDR5	DDR5	DDR5	DDR5	DDR5	DDR5

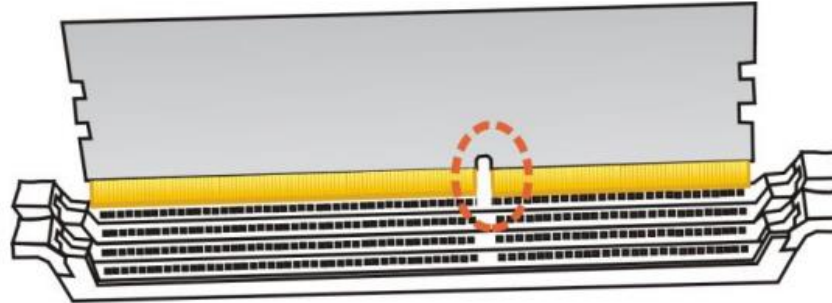
DIMMs Population [2/4]- Opening DIMM latches

□ Step#1 – Open the latches on the left and right sides of the DIMMs by turning it outwards as indicated by the arrows below:

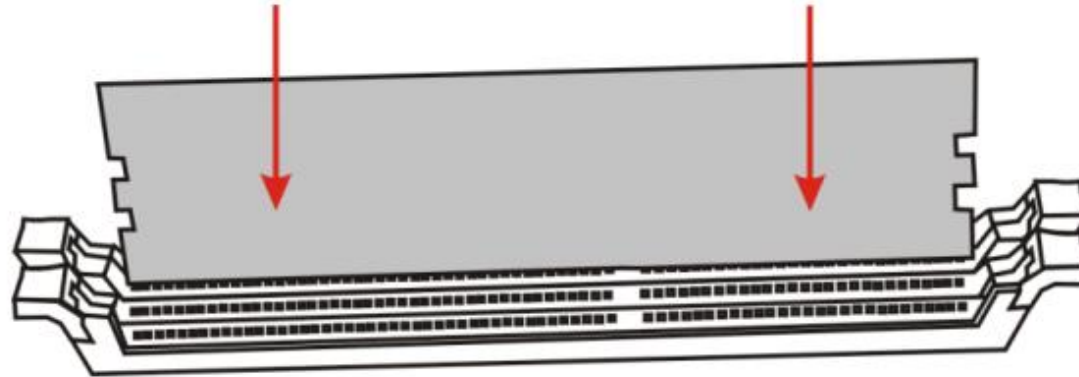


DIMMs Population [3/4]- DIMM Key Alignment

- Step#2 – Select DIMM orientation so that the keys in the DIMM module and socket match



- Step#3 – Insert the DIMM from the top using the guide rails on the left and right of the DIMM sockets



DIMMs Population [4/4]- fixing DIMM in the Socket

- Step#4 – Put your thumbs near the right and left end of the DIMM and press down the DIMM evenly until the white latches fully close with a click



Access the device via Console

❑ Step#1 – Power on the device

○ Prerequisite:

✓ Get DC -40V~-72V power source

○ Device will boot:

✓ Correct behavior: you can hear FAN rotating in maximum speed for a while then down and also the Power LEDs should light up in green



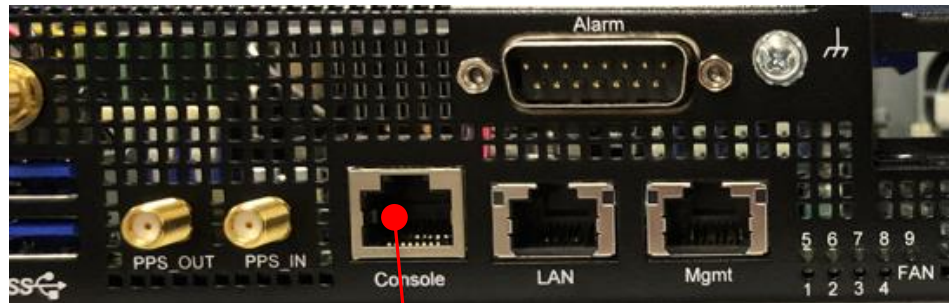
Picture depicted how to plug in the PSU cable



Picture depicted the light color while device booting

Access the device via Console

- ❑ Step#2 – Access the device
 - Prerequisite:
 - ✓ Console cable and PC + Terminal
 - Connect the PC to the server console

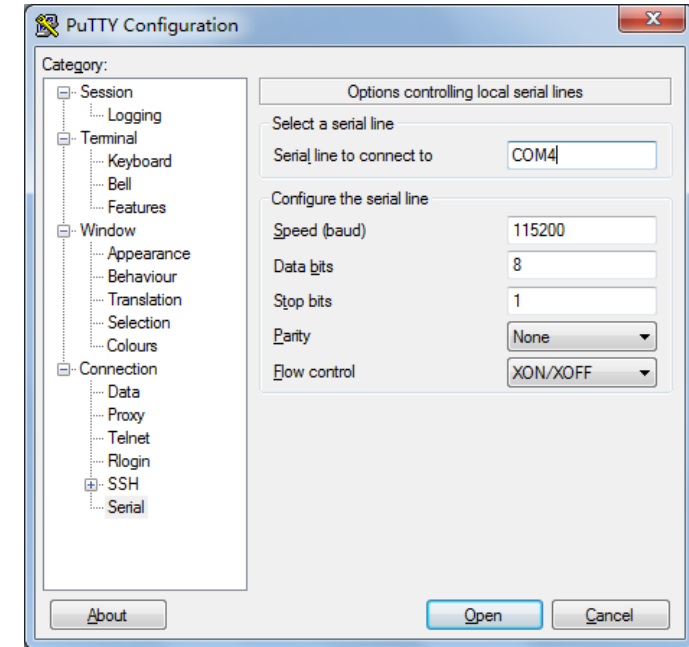


RJ-45

DB9 Connector



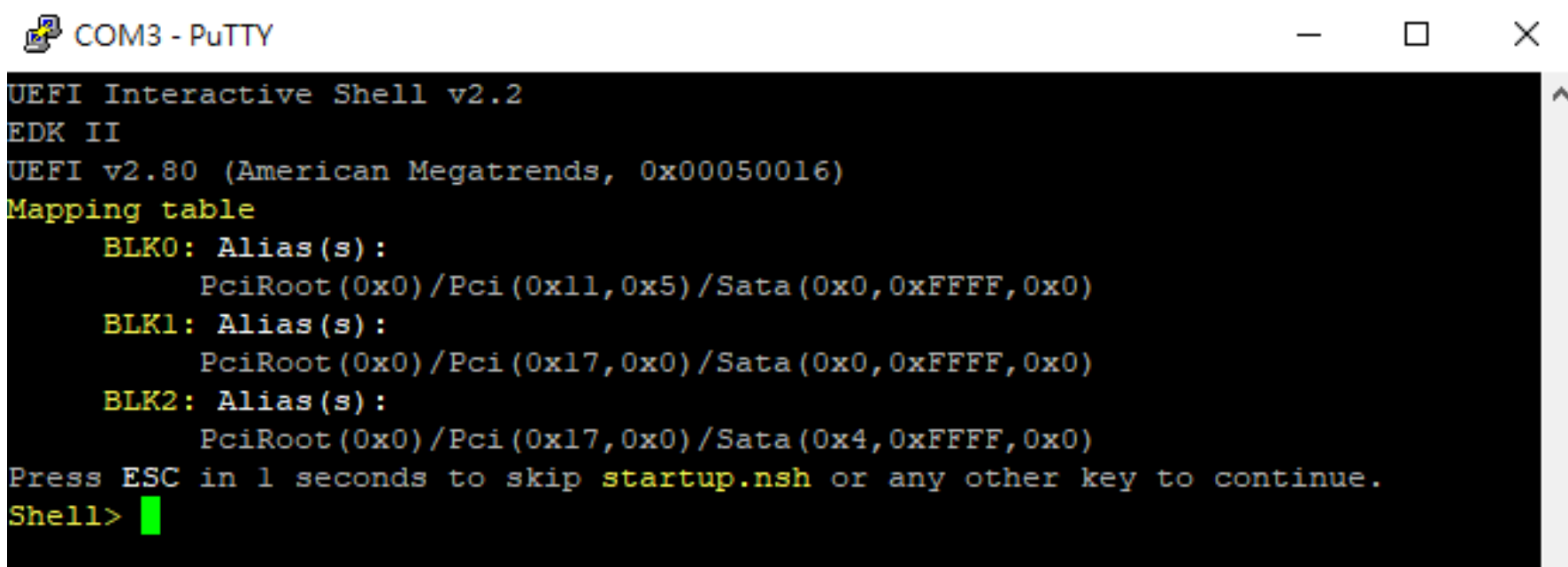
Terminal settings



Terminal Setting:

- Baud rate: 115200
- Data bits : 8
- Stop bits: 1

Access the device via Console

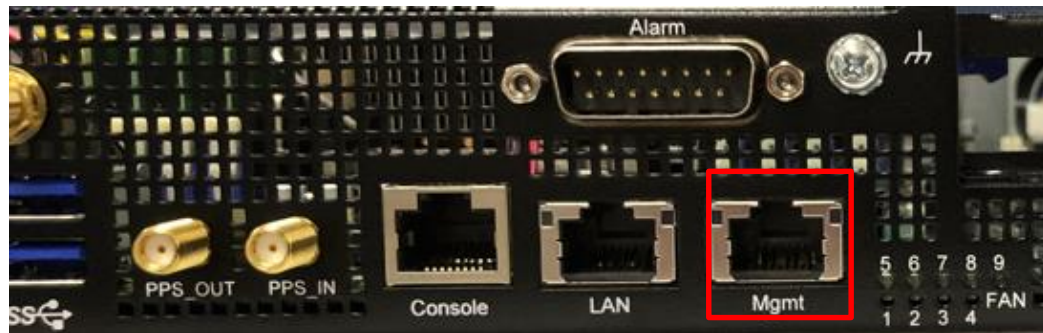
A screenshot of a PuTTY terminal window titled "COM3 - PuTTY". The terminal displays the output of a UEFI Interactive Shell v2.2. The text shown is: "UEFI Interactive Shell v2.2", "EDK II", "UEFI v2.80 (American Megatrends, 0x00050016)", "Mapping table", "BLK0: Alias(s):", "PciRoot(0x0)/Pci(0x11,0x5)/Sata(0x0,0xFFFF,0x0)", "BLK1: Alias(s):", "PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x0,0xFFFF,0x0)", "BLK2: Alias(s):", "PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x4,0xFFFF,0x0)", "Press ESC in 1 seconds to skip startup.nsh or any other key to continue.", and "Shell>". A green cursor is visible after the "Shell>" prompt.

```
COM3 - PuTTY
UEFI Interactive Shell v2.2
EDK II
UEFI v2.80 (American Megatrends, 0x00050016)
Mapping table
  BLK0: Alias(s):
        PciRoot(0x0)/Pci(0x11,0x5)/Sata(0x0,0xFFFF,0x0)
  BLK1: Alias(s):
        PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x0,0xFFFF,0x0)
  BLK2: Alias(s):
        PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x4,0xFFFF,0x0)
Press ESC in 1 seconds to skip startup.nsh or any other key to continue.
Shell>
```

Picture depicted successfully server access via console

Web UI access

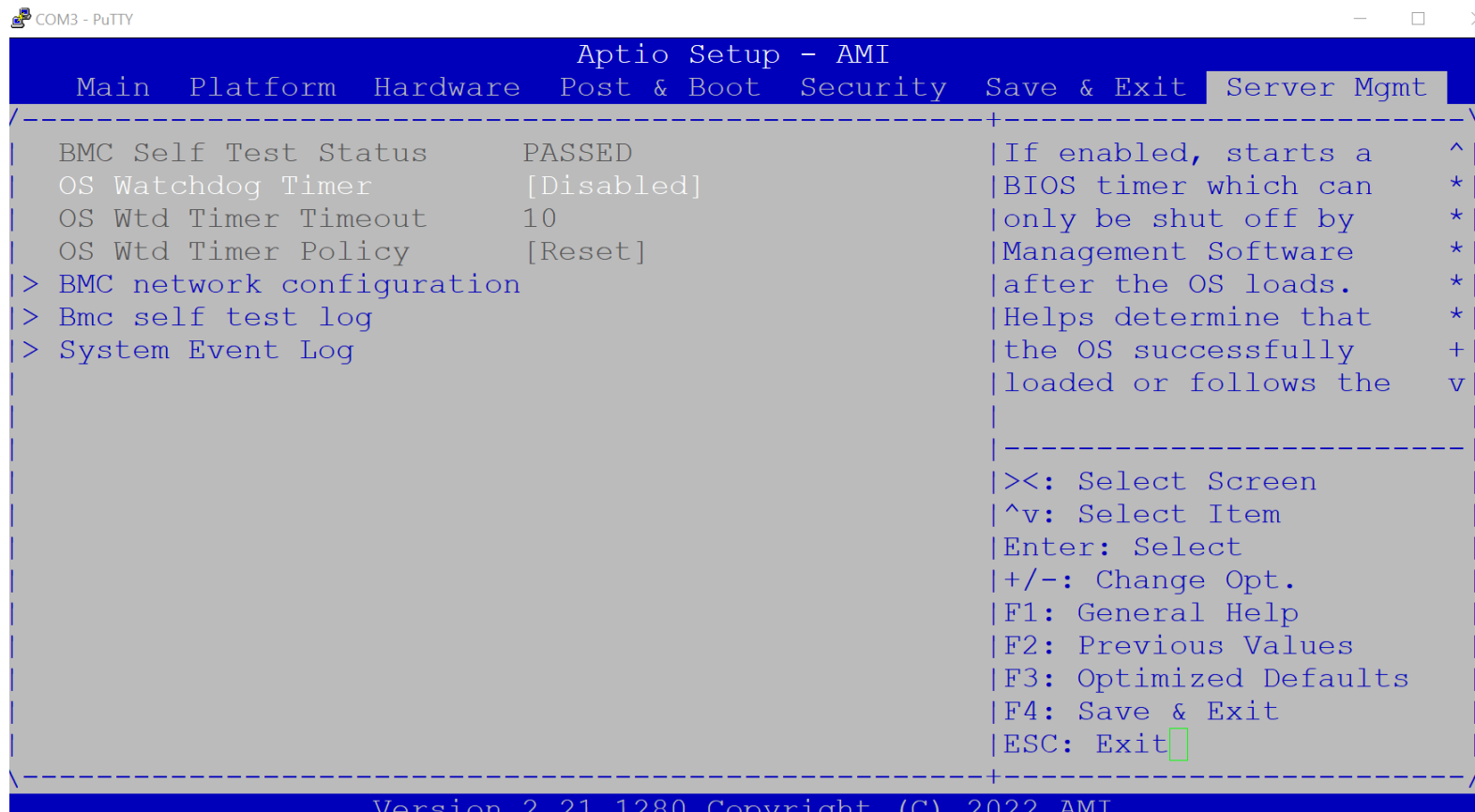
- ❑ In order to access the Web UI, we need to configure the IP address. In this part, we will describe how to set up Web UI IP address via BIOS



NS-SI channel #1

WebUI [1/3]- Configure BMC IP from BIOS

- ❑ Step#1- Press **DEL** after boot up to enter BIOS, and select "**Server Mgmt**" page.



```
COM3 - PuTTY
Aptio Setup - AMI
Main Platform Hardware Post & Boot Security Save & Exit Server Mgmt
-----|-----|-----|-----|-----|-----|
BMC Self Test Status PASSED |If enabled, starts a ^|
OS Watchdog Timer [Disabled] |BIOS timer which can *|
OS Wtd Timer Timeout 10 |only be shut off by *|
OS Wtd Timer Policy [Reset] |Management Software *|
> BMC network configuration |after the OS loads. *|
> Bmc self test log |Helps determine that *|
> System Event Log |the OS successfully +|
|loaded or follows the v|
|-----|-----|-----|-----|-----|
|><: Select Screen |
|^v: Select Item |
|Enter: Select |
|+/-: Change Opt. |
|F1: General Help |
|F2: Previous Values |
|F3: Optimized Defaults |
|F4: Save & Exit |
|ESC: Exit |
-----|-----|-----|-----|-----|
Version 2.21.1280 Copyright (C) 2022 AMI
```


WebUI [3/3]- Configure BMC IP from BIOS

❑ Step#3- Set "Configuration Address" -> "Static", and then key in the IP address and subnet mask.

*You could also choose DHCP as well to obtain an IP address from your DHCP server.

```
COM3 - PuTTY
Aptio Setup - AMI
Server Mgmt

-----+-----
| Configure IPv4 support          ^|Select to configure LAN ^|
| *****                       *|channel parameters      *|
|                               *|statically or          *|
|                               *|dynamically(by BIOS or *|
| Lan channel 1                  *|BMC). Unspecified      *|
| Configuration Address [Unspecified] *|option will not modify *|
| Current Configuration StaticAddress *|
| Station IP address/----- Configuration Address source ---\MC network +|
| Subnet mask                    | Unspecified            |ers during BIOS v|
| Station MAC address            | Static                  |
| Router IP address              | DynamicBmcDhcp         |
| Router MAC address            | DynamicBmcNonDhcp      |
|                               |                         |
| Lan channel 2                  |                         |
| Configuration Address [Unspecified] +|+/-: Change Opt.    +|
| Current Configuration DynamicAddressBmcDhcp +|F1: General Help   +|
| Station IP address            172.17.10.12 +|F2: Previous Values +|
| Subnet mask                    255.255.254.0 +|F3: Optimized Defaults |
| Station MAC address            74-FE-48-2A-66-36 v|F4: Save & Exit    |
|                               |ESC: Exit           |
|                               +-----+-----+
Version 2.22.1287 Copyright (C) 2023 AMI
AB
```

❑ Step#4- Save and Exit

Web UI access from browser

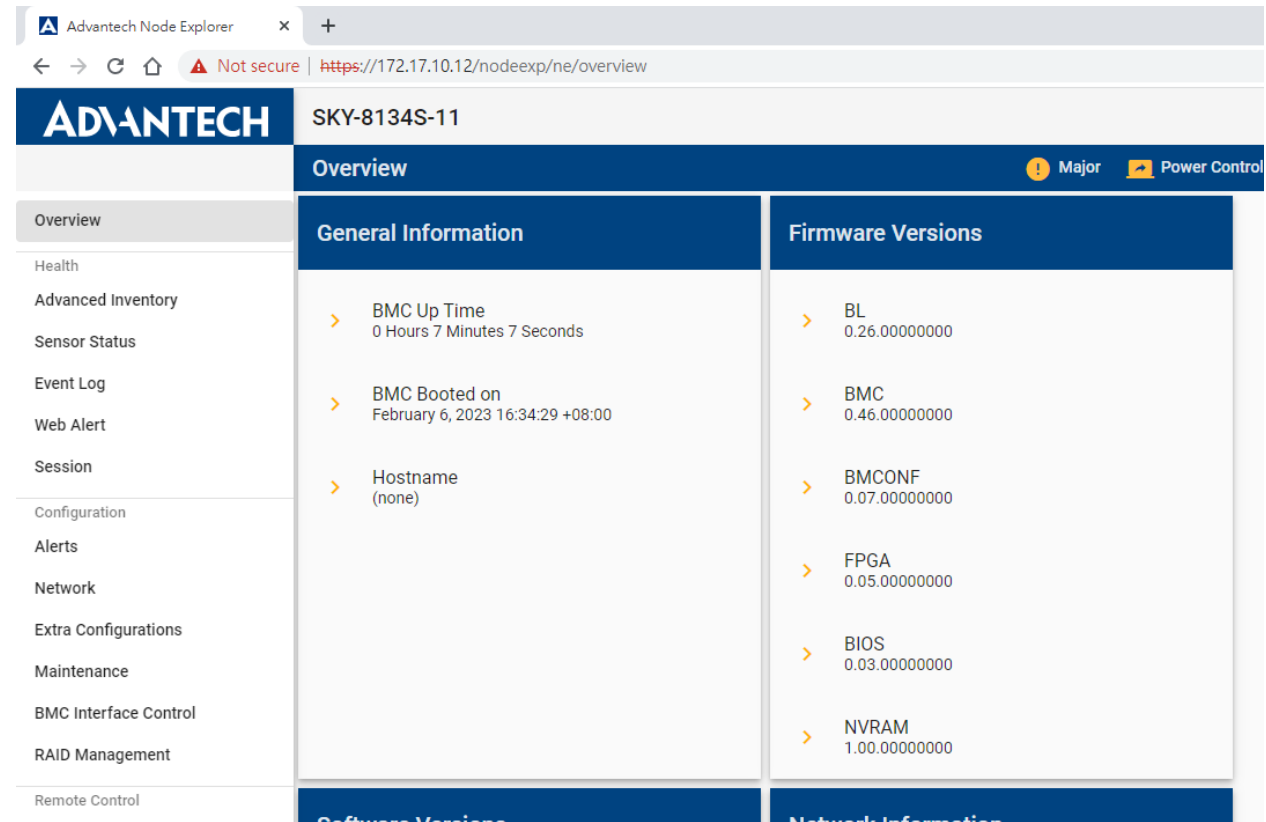
After completing the steps above (Web UI IP configured via either BIOS or IPMI commands), open your favorite browser the enter the Web UI IP as below: <https://BMCIP>

The default login credentials:

- User: administrator
- Password: advantech

Node Explorer User Manual

<https://www.advantech.com/support/details/manual?id=1-1MU1KB1>



The screenshot displays the Advantech Node Explorer web interface in a browser window. The browser address bar shows the URL <https://172.17.10.12/nodeexp/ne/overview>. The interface features a dark blue header with the Advantech logo and the system ID "SKY-8134S-11". Below the header, there is a navigation menu on the left and a main content area. The main content area is divided into two columns: "General Information" and "Firmware Versions".

General Information	Firmware Versions
<ul style="list-style-type: none">> BMC Up Time 0 Hours 7 Minutes 7 Seconds> BMC Booted on February 6, 2023 16:34:29 +08:00> Hostname (none)	<ul style="list-style-type: none">> BL 0.26.00000000> BMC 0.46.00000000> BMCONF 0.07.00000000> FPGA 0.05.00000000> BIOS 0.03.00000000> NVRAM 1.00.00000000

OS installation

You could install your OS by following one of the below methods:

Method #1- Via Console Redirection

Reference: <https://advantech-ncg.zendesk.com/hc/en-us/articles/360017541092-How-to-install-Linux-in-non-VGA-system-with-console-redirection>

Method #2- Via BMC Web UI

Reference: <https://advantech-ncg.zendesk.com/hc/en-us/articles/360047012912-How-to-install-operating-system-remotely-through-BMC-Web-UI-Remote-Storage->

*Go Together,
We Go Far and Grow Big*

