ADVANTECH

Enabling an Intelligent Planet

FWA-1081 QSG

Cloud-IoT Business Group

06/05 , 2024

History

Version	Date	Handled by	Note
V01	2024/06/05	Mohamine.Ouedraogo	1st release
V02	2024/06/27	Mohamine.Ouedraogo	Adjust System LEDs legend

Agenda

- ❑ Server Front Side
- ❑ Server Rear Side
- ❑ DIMMs Population
- ❑ Remove/Install NMC-R001
- ❑ Access the device via console
- ❑ WebUI Access
- ❑ OS installation

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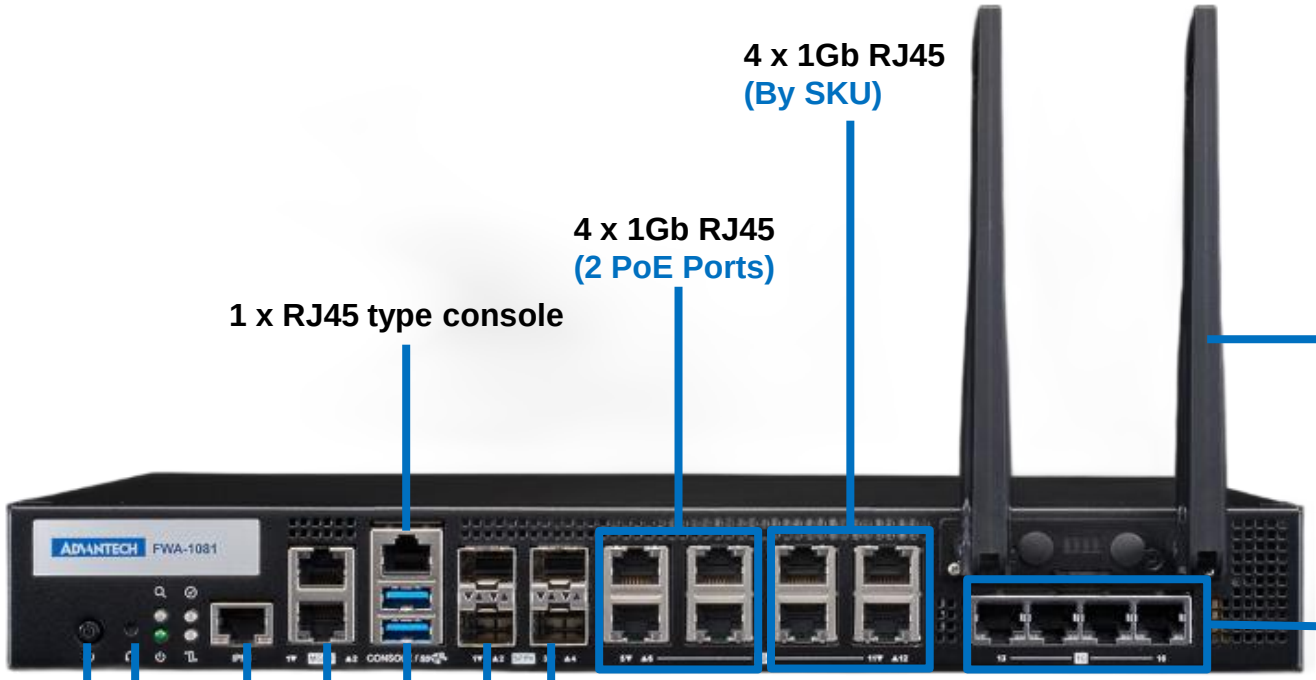
Server Front Side [1/2] – Overview



4 x 1Gb RJ45 (By SKU)

4 x 1Gb RJ45 (2 PoE Ports)

1 x RJ45 type console

Antenna for 4G/5G LTE module (Optional)

4 x 1Gb RJ45 with 2 pairs of LAN Bypass

2 x 10Gb SFP+

2 x 10Gb SFP+(By SKU)

2 x USB 3.0

2 x 2.5Gb MGMT Ports

1 x Dedicated IPMI Port

SW-defined Button

Power Button

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Server Front Side [2/2]- System LEDs

SW Defined: Green/Amber solid on
Alert: Amber solid on

Locate: Blue solid on
Power: Green solid on

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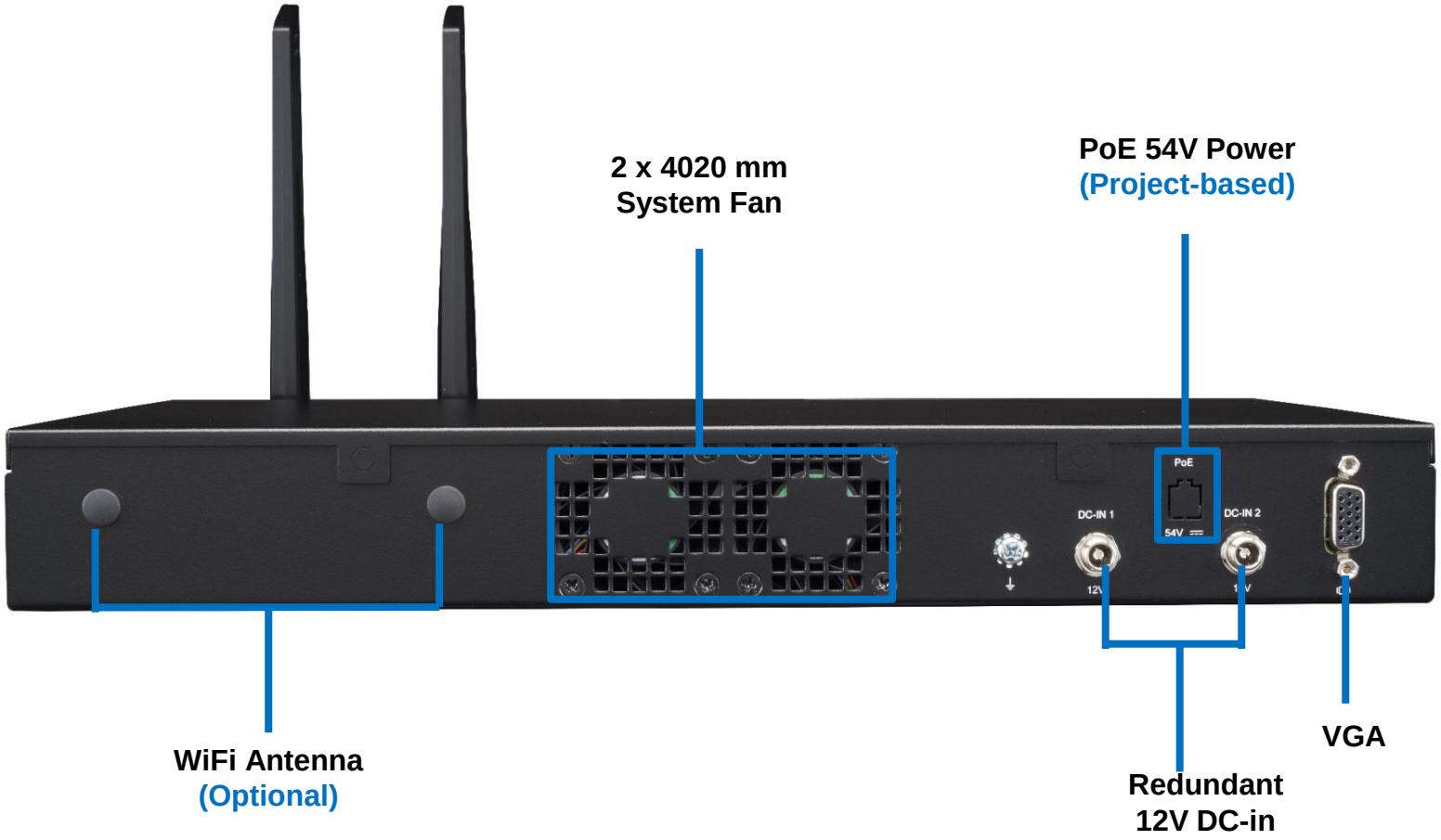
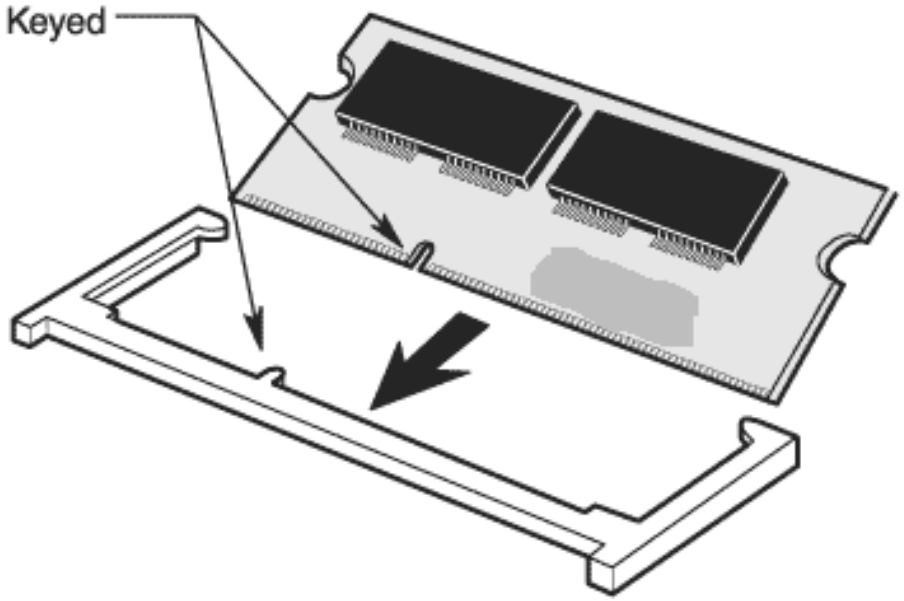
Server Rear Side



DIMMs Population [1/3]

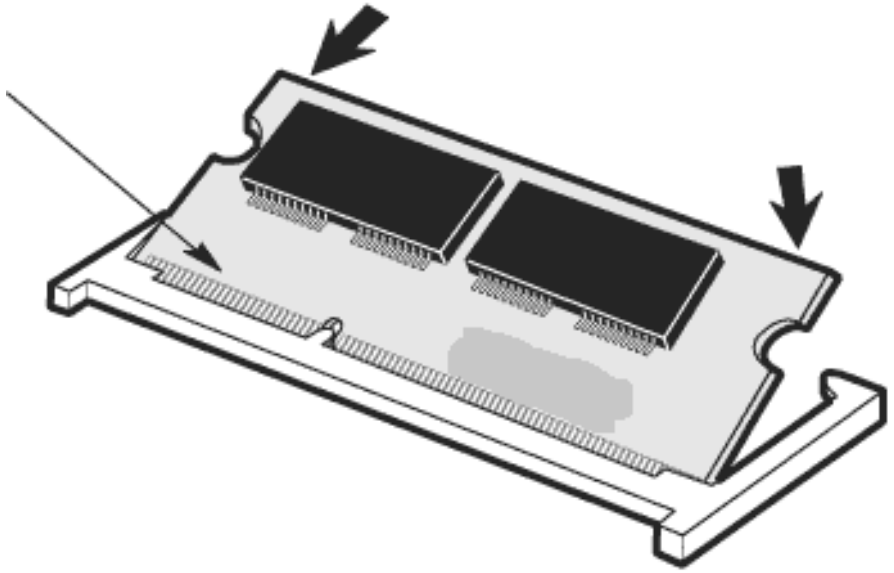
- Step#1 - Insert the module into the socket at a slight angle (approximately 30 degrees).



Note that the socket and module are both keyed, which means the module can be installed one way only.

DIMMs Population [2/3]

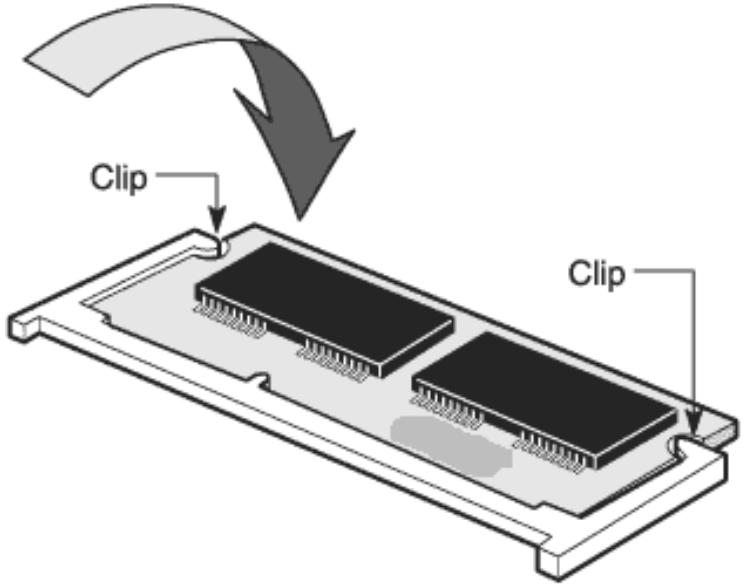
- Step#2 - To seat the module into the socket, apply firm, even pressure to each end of the module (see the arrows) until you feel it slip down into the socket.



When properly seated, the contact fingers on the edge of the module will almost completely disappear inside the socket.

DIMMs Population [3/3]

- Step#3 - With the module properly seated in the socket, rotate the module downward, as indicated in the illustration. Continue pressing downward until the clips at each end of the socket lock into position.



With most sockets, you will hear a distinctive CLICK, indicating the module is correctly locked into position.

Remove top cover [1/2]

- Step #1 - Remove 4 screws.

System left side.

System right side.

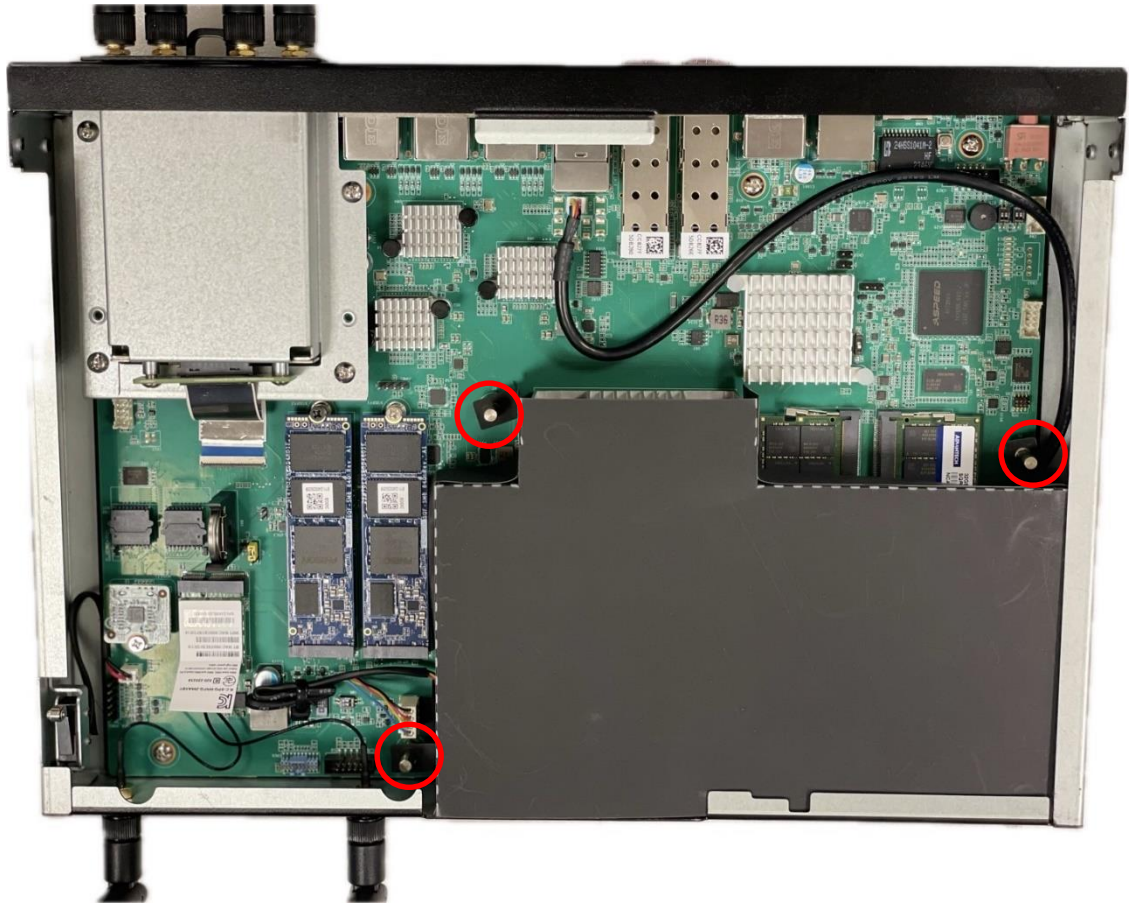
Remove top cover [2/2]

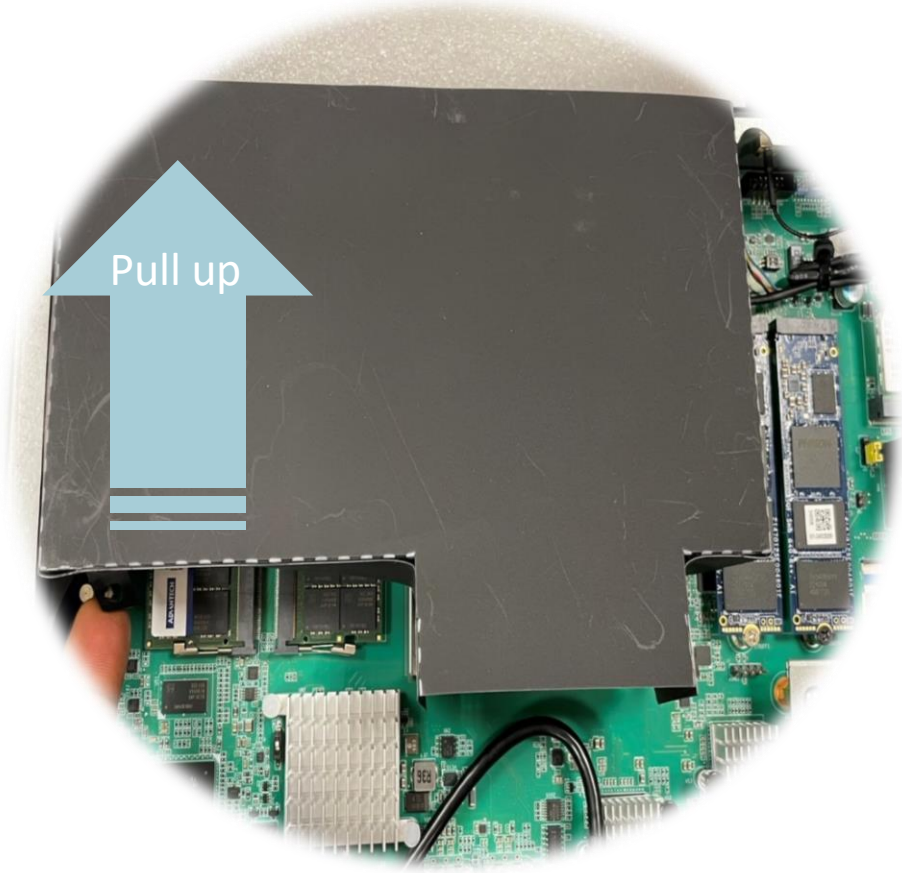
- Step #2 - Push top cover from front to rear, then remove it.

Top down without top cover.

Remove Air Duct [1/2]

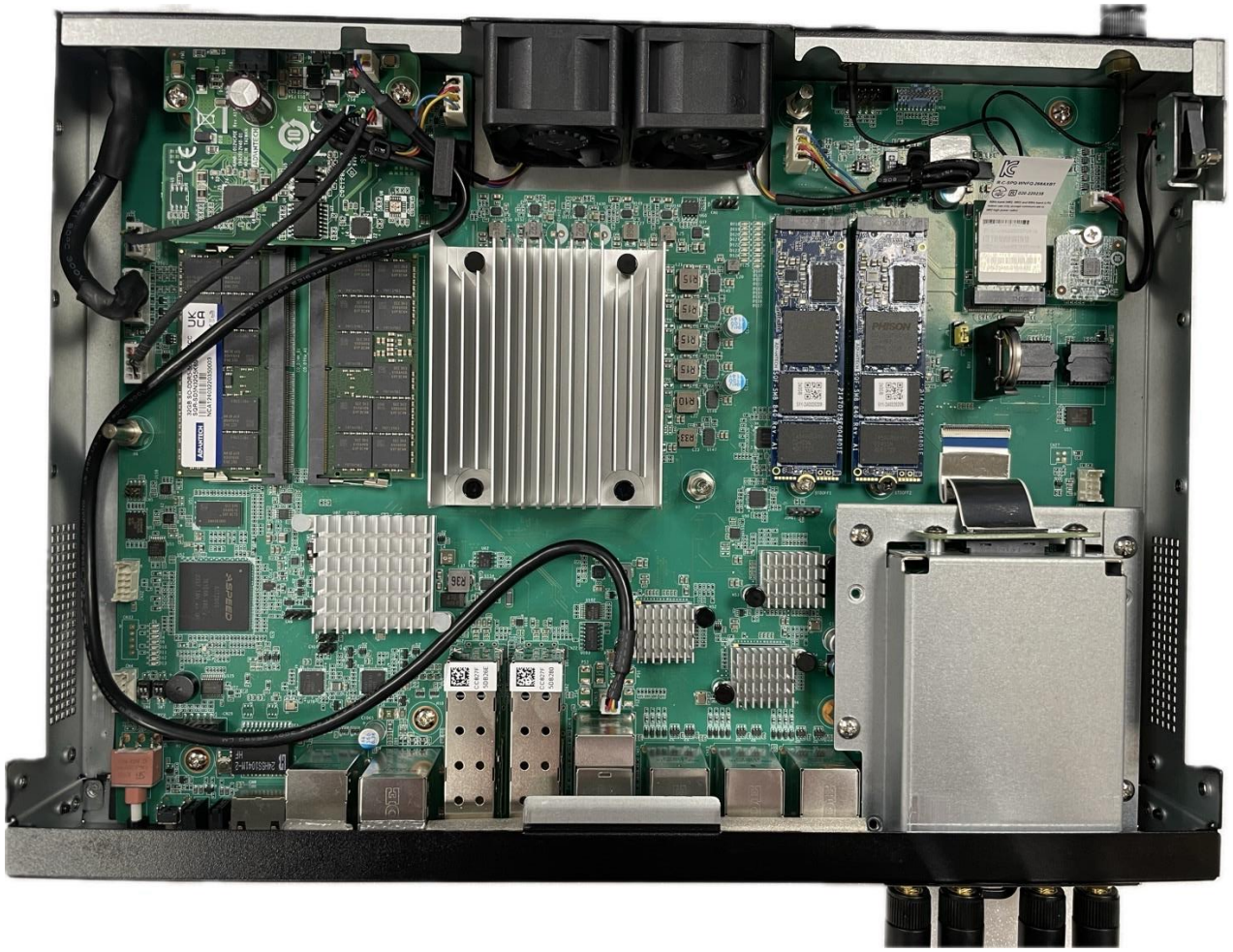
❑ Step #1 - Slightly pull up air duct on both side till it out of guiding pins.





Remove Air Duct [2/2]

- Step #2 - You should see DIMM slots and CPU sockets when air duct is removed.

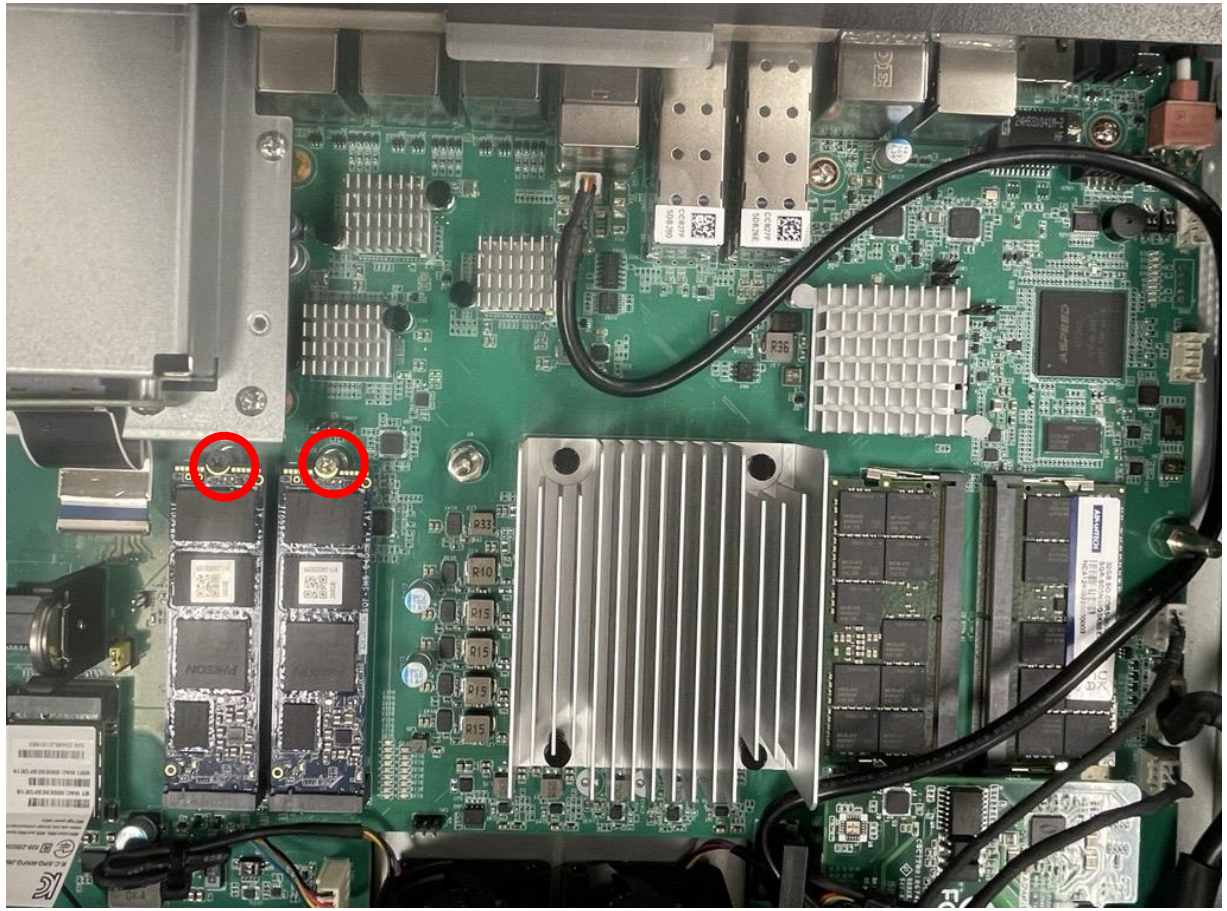


Install M.2 disk [1/2]

- Step #1 - Slightly Align the notch on the M.2 drive with the key in the M.2 slot, Insert the drive at a 30-degree angle.

Install M.2 disk [2/2]

- Step #2 - Press the drive down flat against the motherboard, and tighten screws after installing M.2 disks.

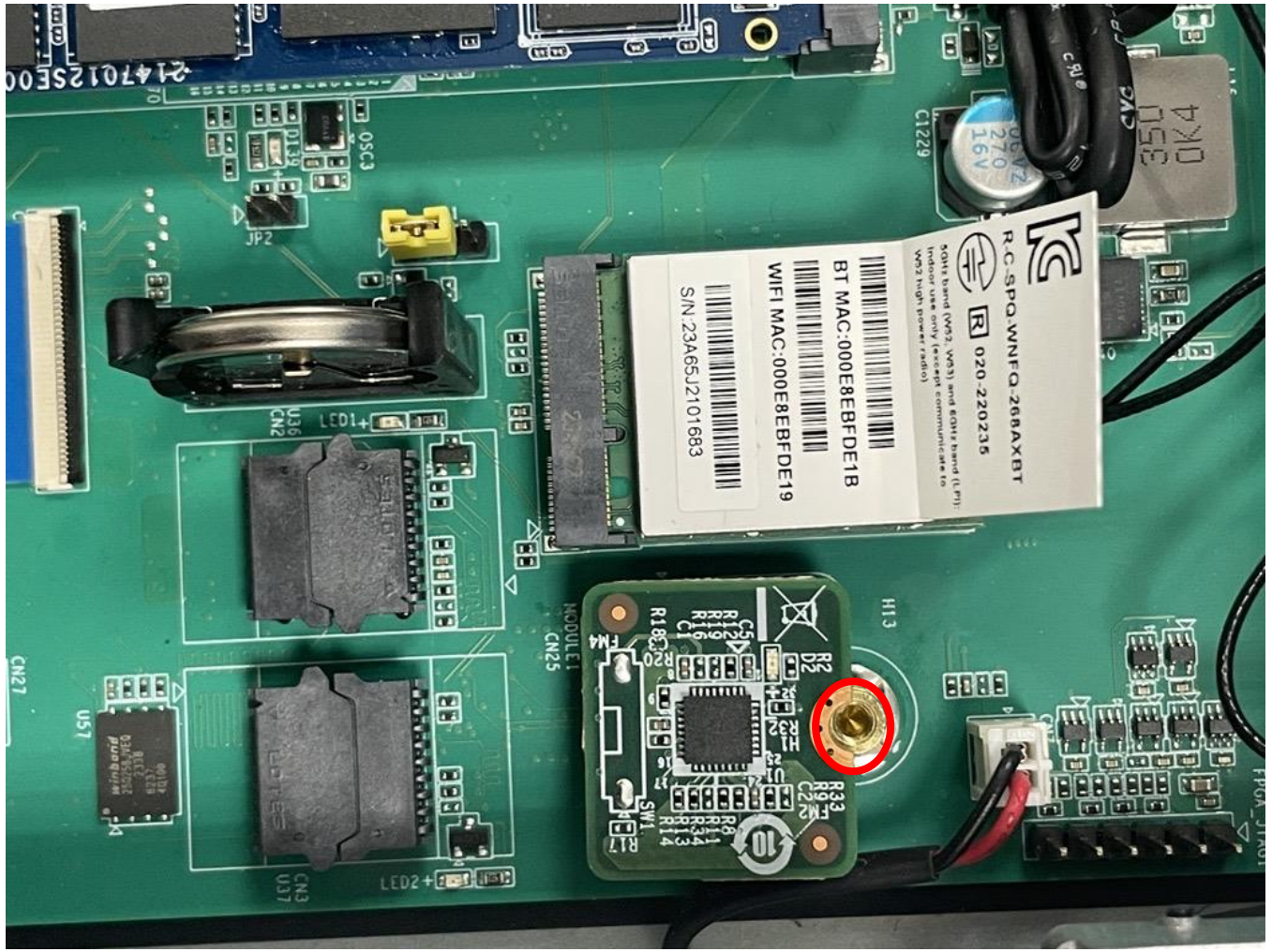


Install TPM module [1/2]

❑ Step #1 - Align connector from TPM module to the pin header on motherboard.

Install TPM module [2/2]

- Step #2 - Tighten the screw after installation.



Remove/Install NMC-R001 [1/4]

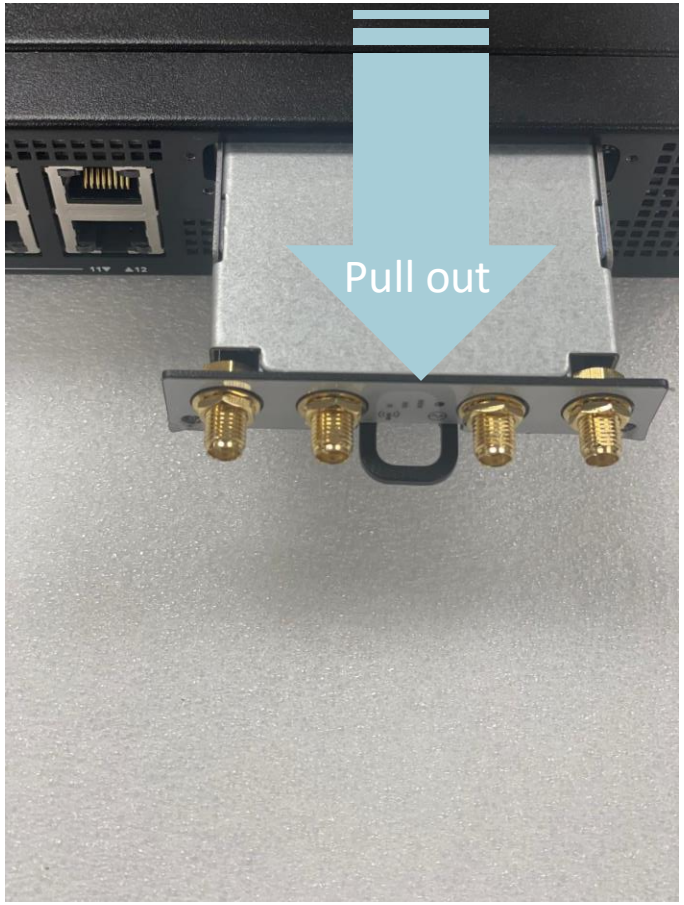
- Step #1 - Unscrew the antennas from the panel

Remove/Install NMC-R001 [2/4]

❑ Step #2 Unscrew the screw(s) securing the NMC-R001.

Remove/Install NMC-R001 [3/4]

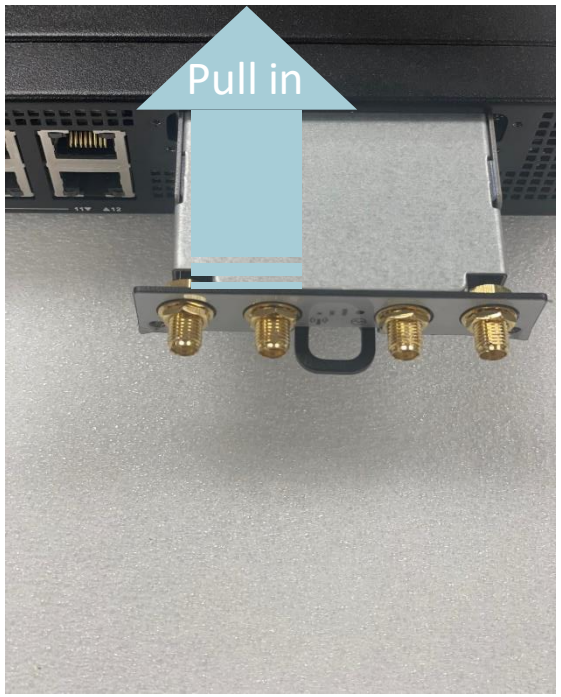
- Step #3 Gently pull the NMC out of the PCIe slot.



Picture depicted NMC-R001 removed

Remove/Install NMC-R001 [4/4]

❑ Step #4 - Installing the NMC-R001 (Reverse the Removal Procedure).



Access the device via Console [1/3]

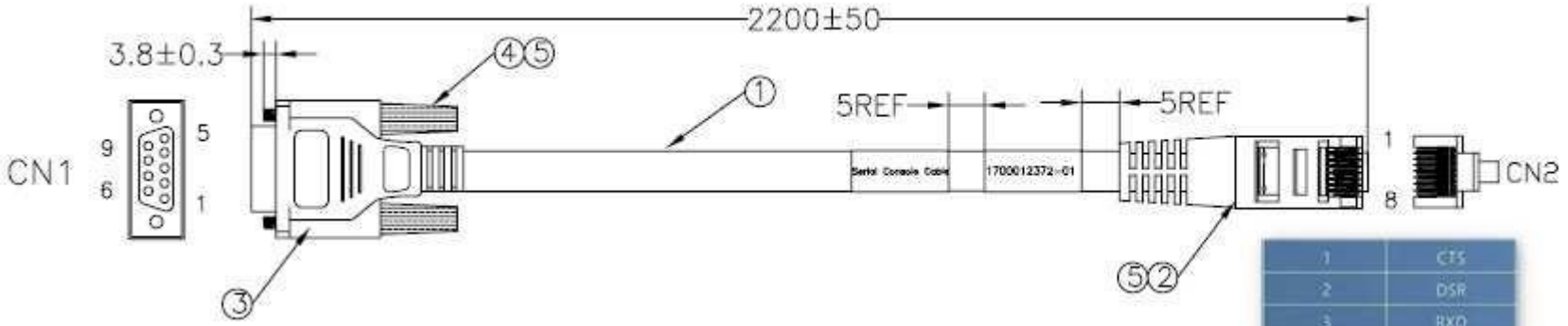
- Step#1 – Power on the device
  - Prerequisite:
    - ✓ Get DC 100-240 V ~ 2.5A 50-60 Hz
  - Device will boot:
    - ✓ Correct behavior: you can hear FAN rotating in maximum speed for a while then down and also the Power LEDs should light up.

Picture depicted how to plug in the PSU cable

Picture depicted the light color while device booting

Access the device via Console [2/3]

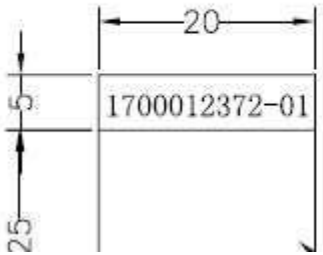
❑ Step#2 – prepare a console cable, check pin definition of RJ45 as below.

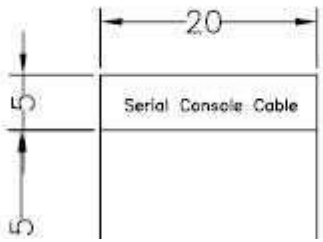


1	CTS
2	DSR
3	RXD
4	GND
5	GND
6	TXD
7	DTR
8	RTS

WIRE LIST

CN1	CN2	COLOR
2	3	White/Orange
3	6	Orange
4	7	White/Green
5	4	Green
6	2	White/Blue
7	8	Blue
8	1	White/Brown
9	5	Brown

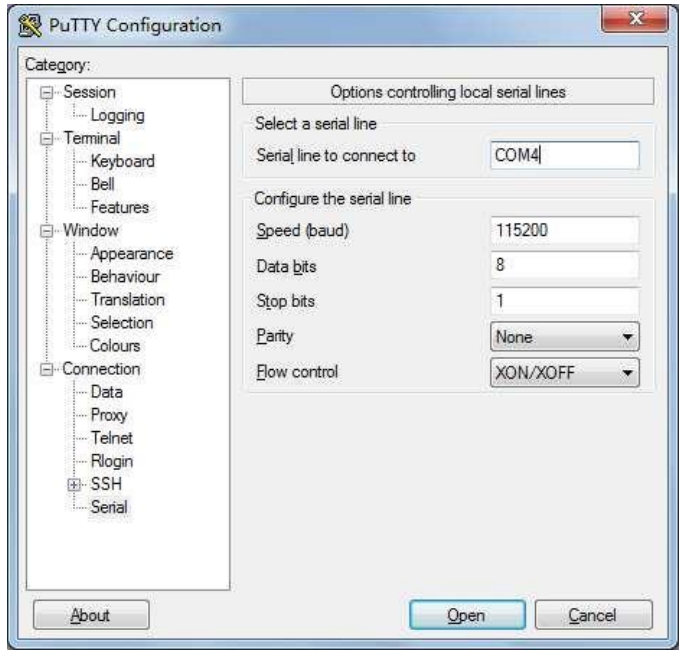


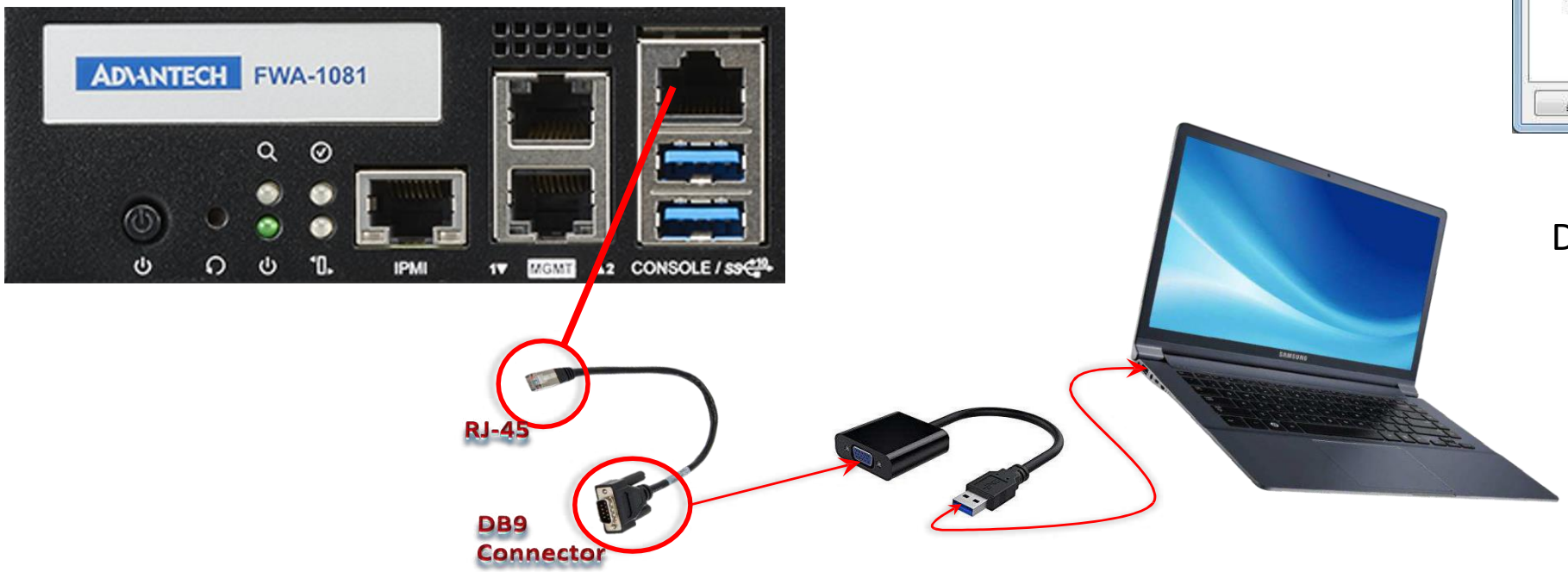


Access the device via Console [3/3]

- Step#3 – Access the device.
  - Prerequisite:
    - ✓ Console cable and PC + Terminal
  - Connect the PC to the server console.

Terminal settings



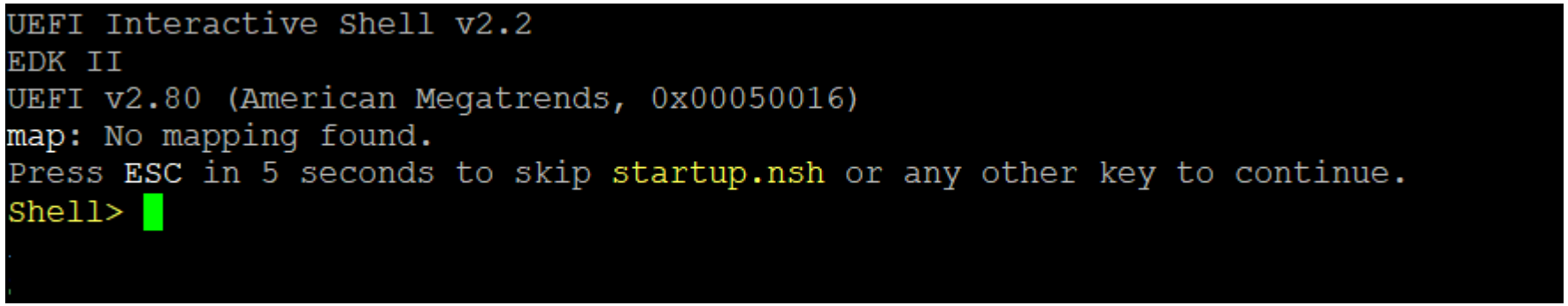


Default BIOS baud-rate Setting:

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

Access the device via Console

- You shall find console output on your console utility



Picture depicted successfully server access via console

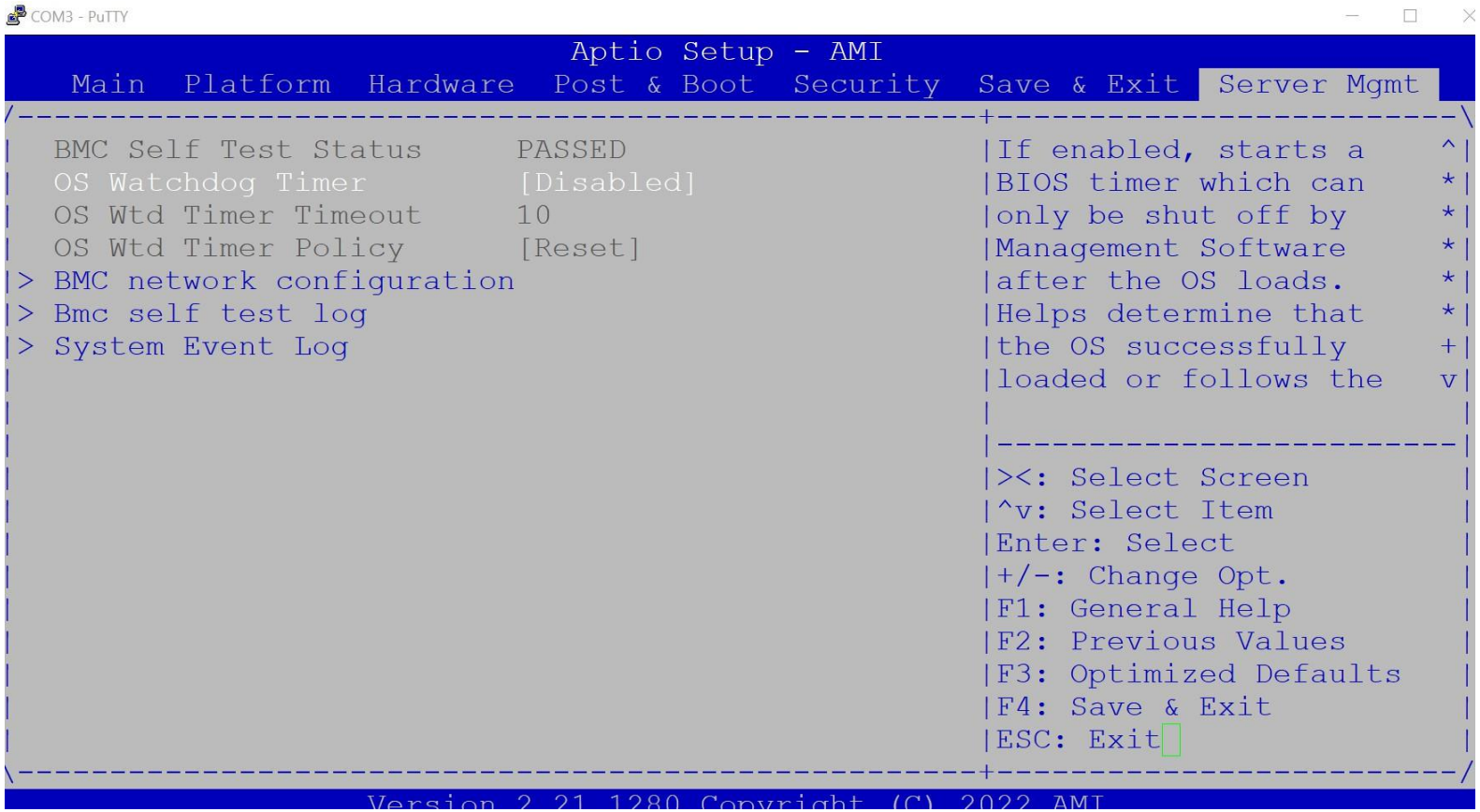
WebUI access

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

BMC LAN channel #1

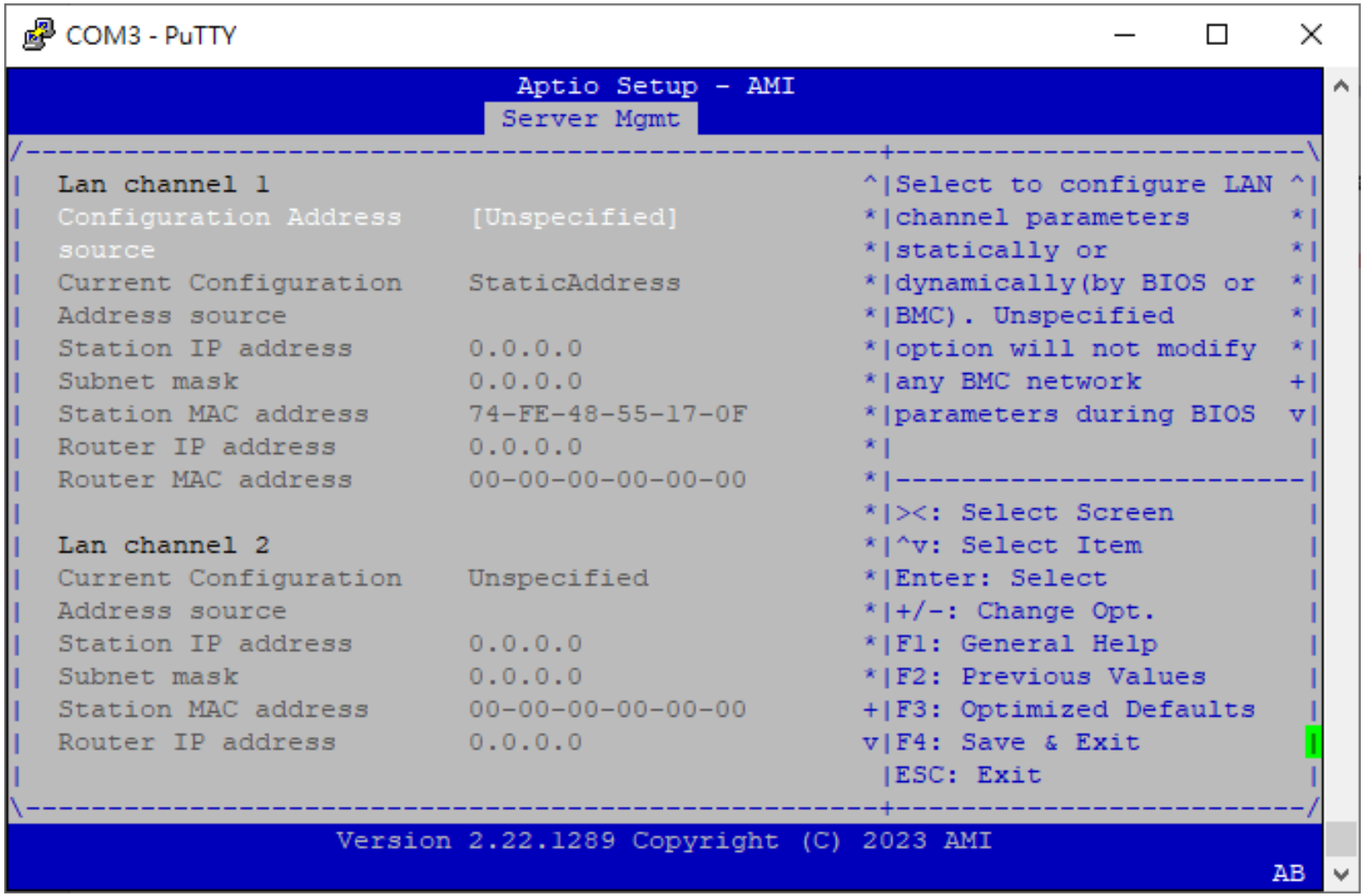
WebUI [1/3]- Configure BMC IP from BIOS

- Step#1- Press **DEL** after boot up to enter BIOS, select "**Server Mgmt**" page, and Choose "**BMC network configuration**"



WebUI [2/3]- Configure BMC IP from BIOS

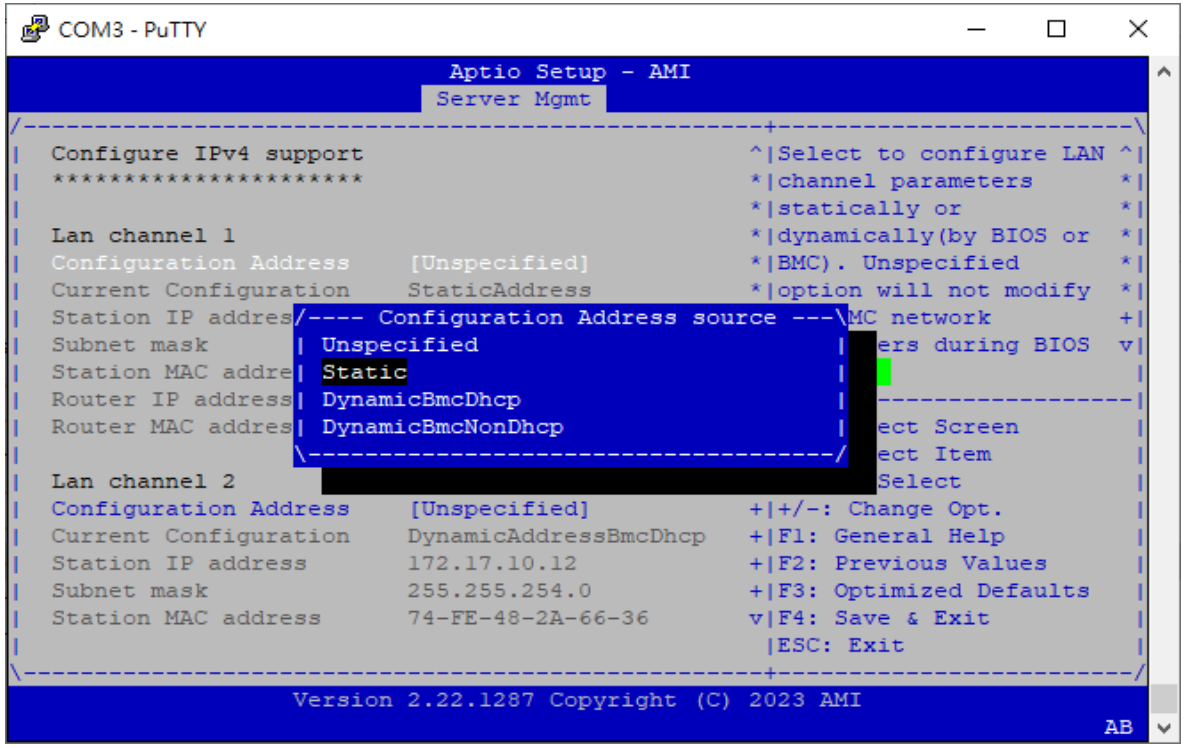
- Step#2- login "--BMC network configuration—" page



WebUI 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.



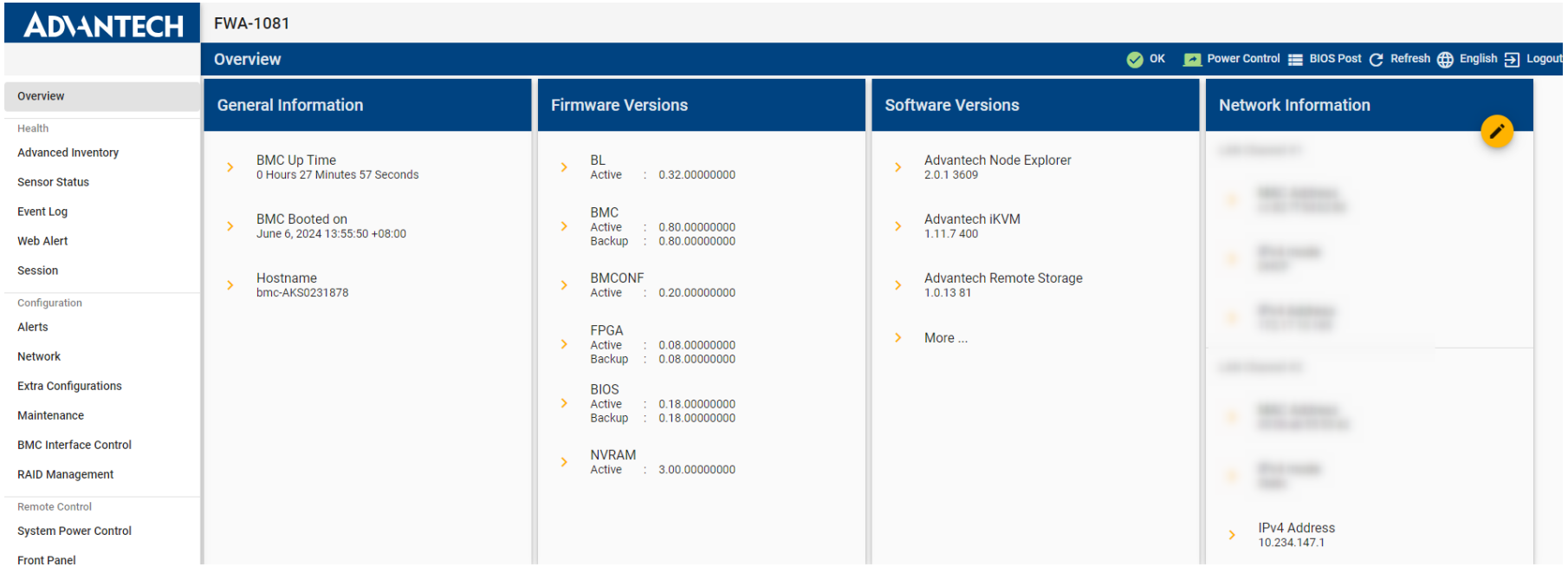
- Step#4- Save and Exit

WebUI access from browser

After completing the steps above (WebUI IP configured via either BIOS or ipmitool), open your favorite browser the enter the WebUI 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

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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