

# FWA-1081 QSG



Cloud-IoT Business Group

06/05 , 2024

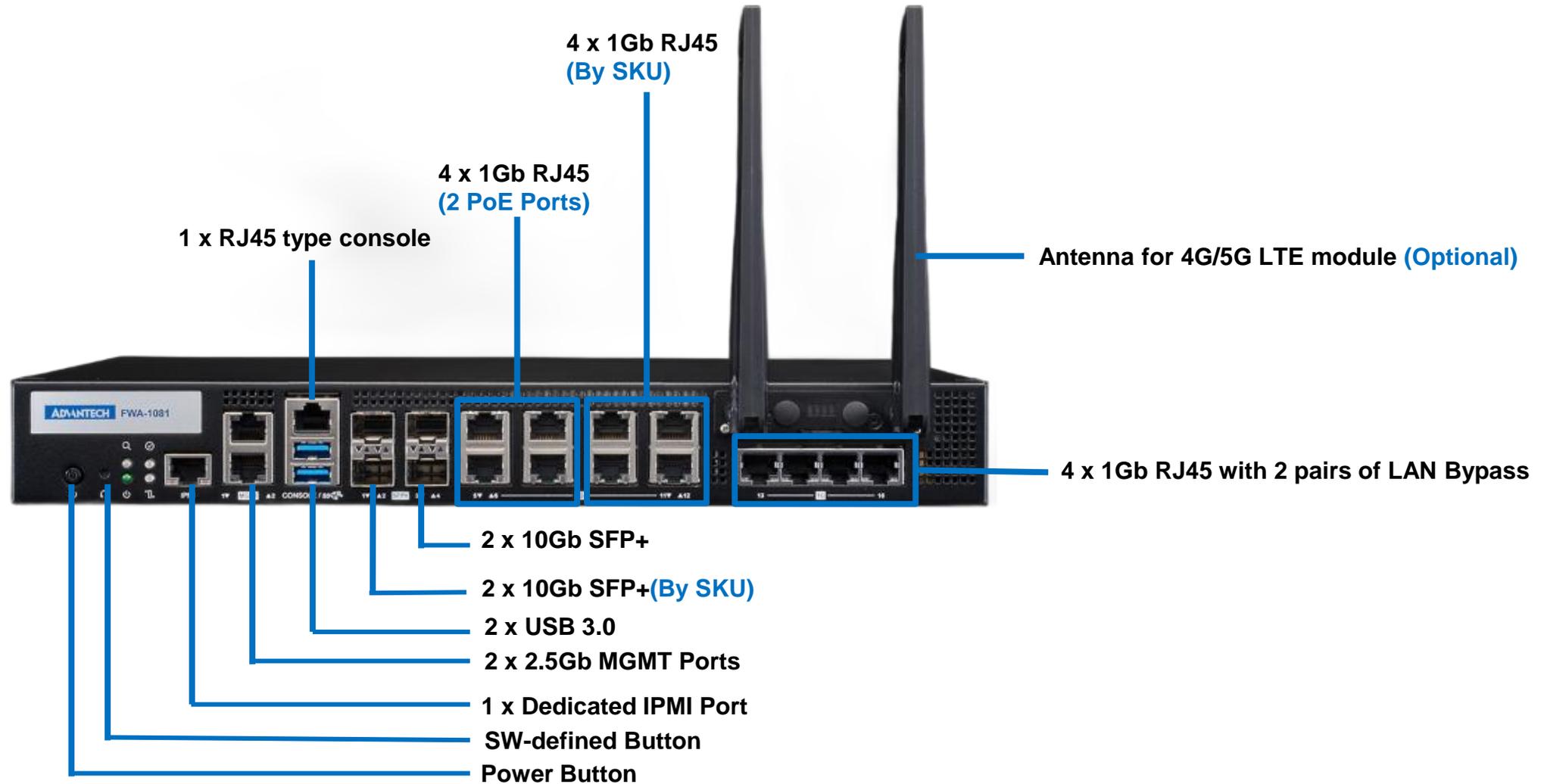
# History

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

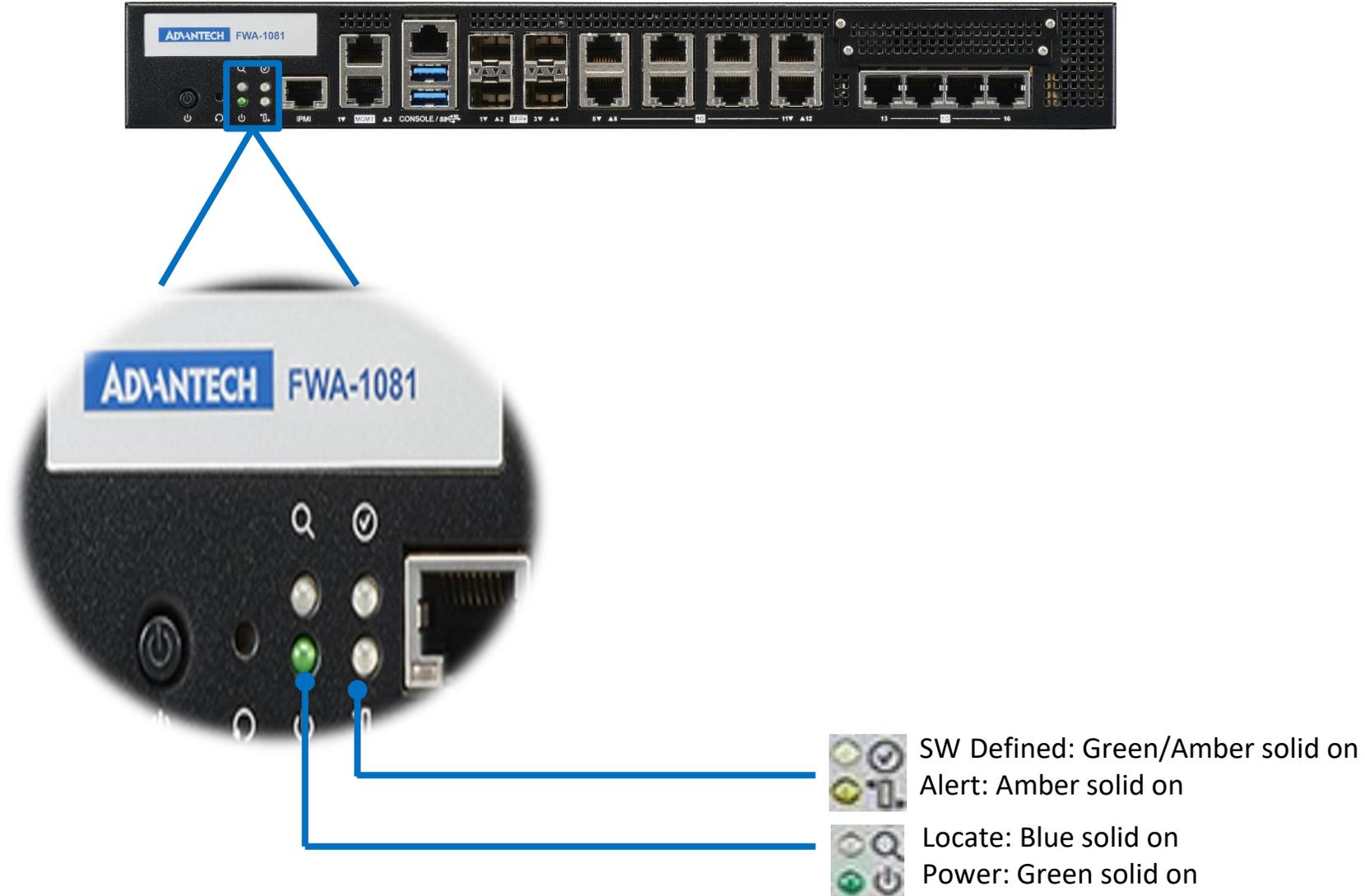
# Agenda

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

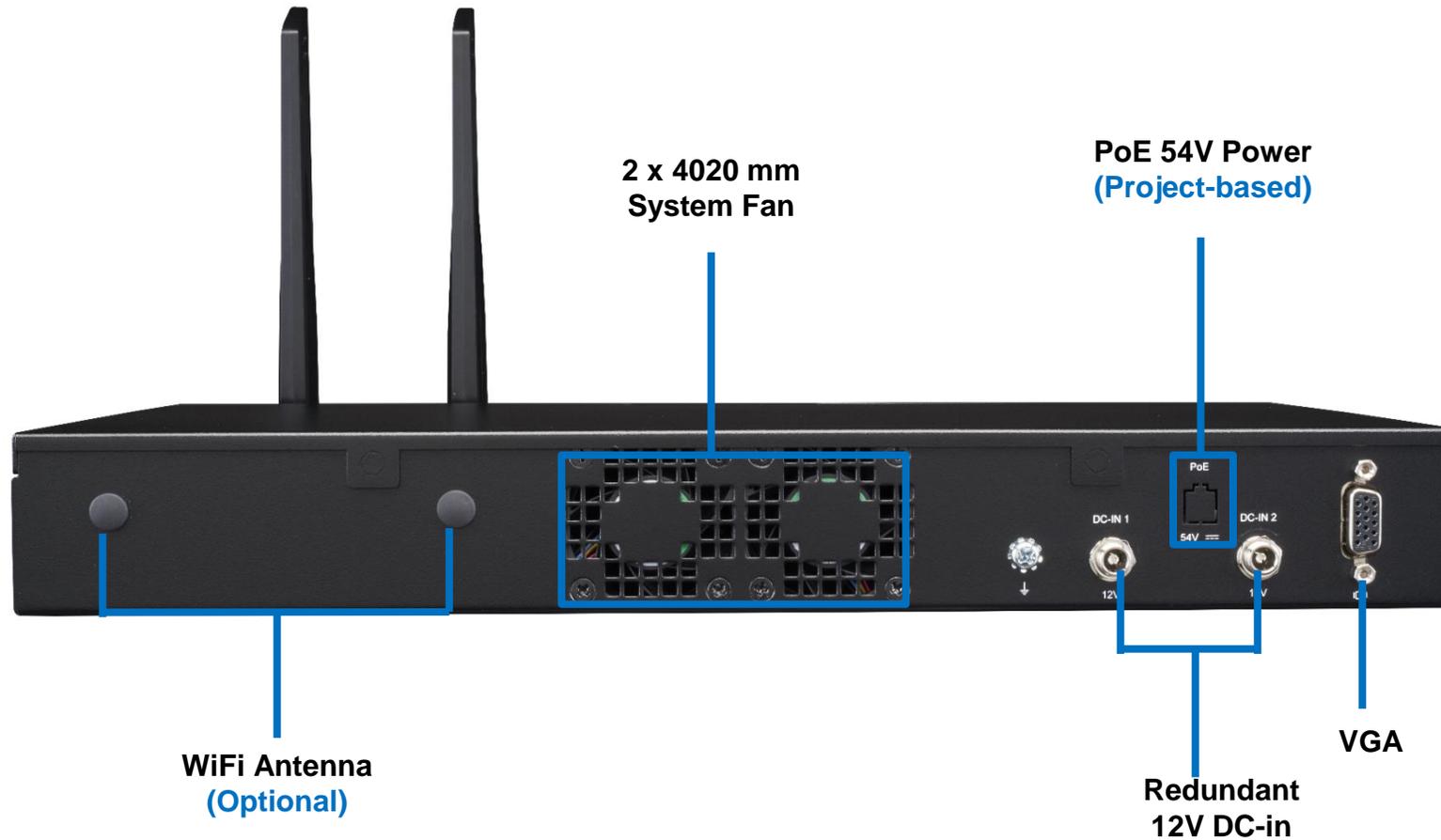
# Server Front Side [1/2] – Overview



# Server Front Side [2/2]- System LEDs

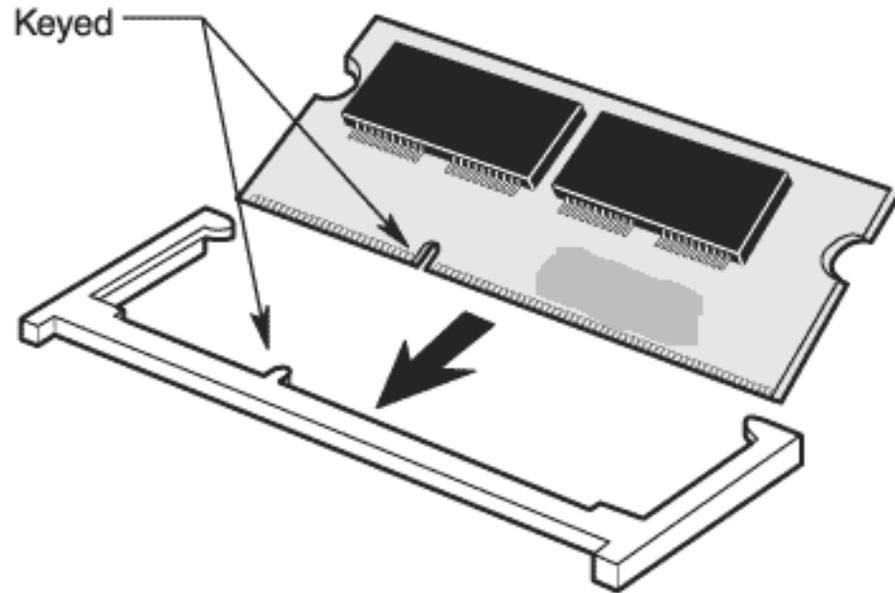


# Server Rear Side



# DIMMs Population [1/3]

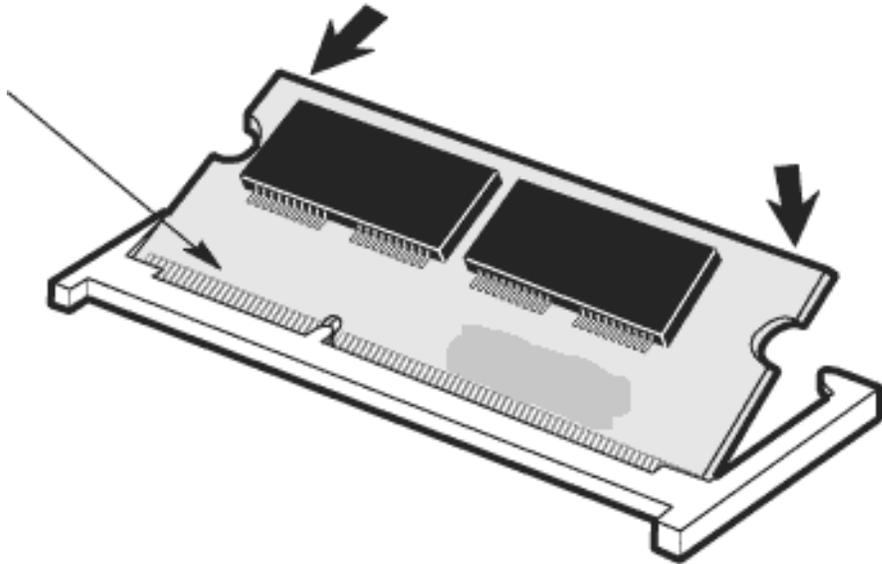
- ❑ Step#1 - Insert the module into the socket at a slight angle (approximately 30 degrees).



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

# DIMMs Population [2/3]

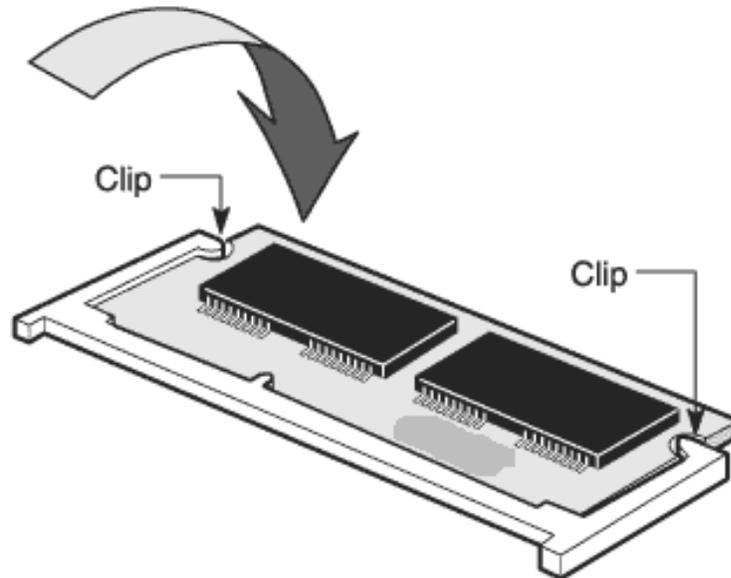
- ❑ Step#2 - To seat the module into the socket, apply firm, even pressure to each end of the module (see the arrows) until you feel it slip down into the socket.



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]

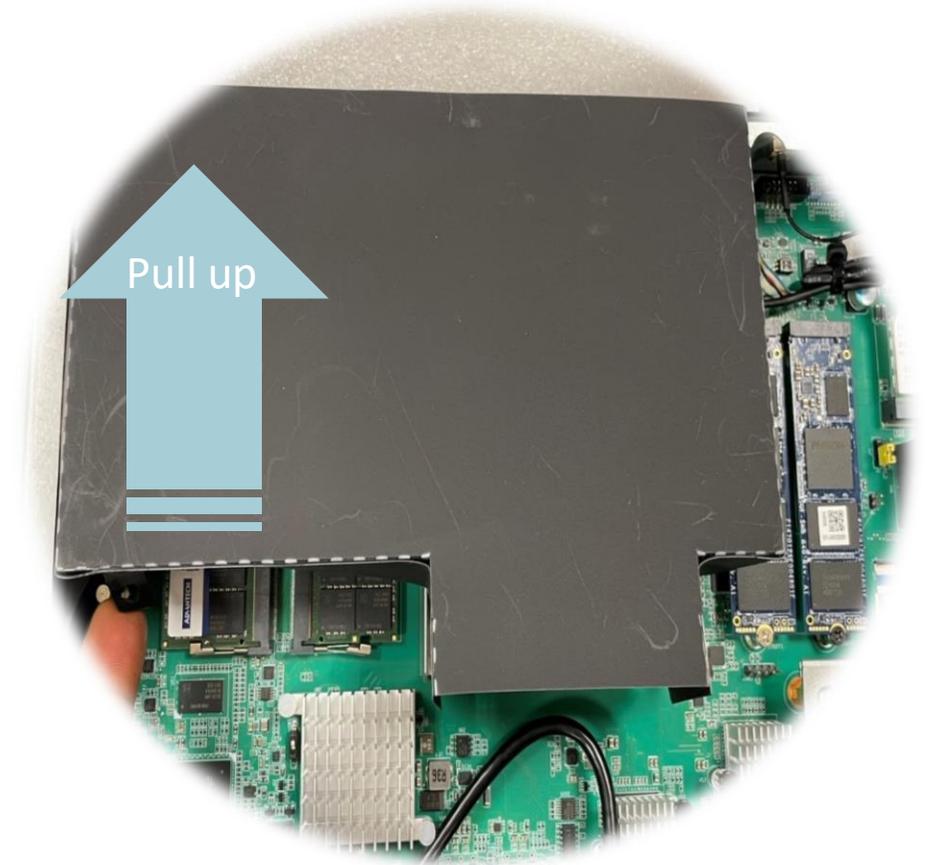
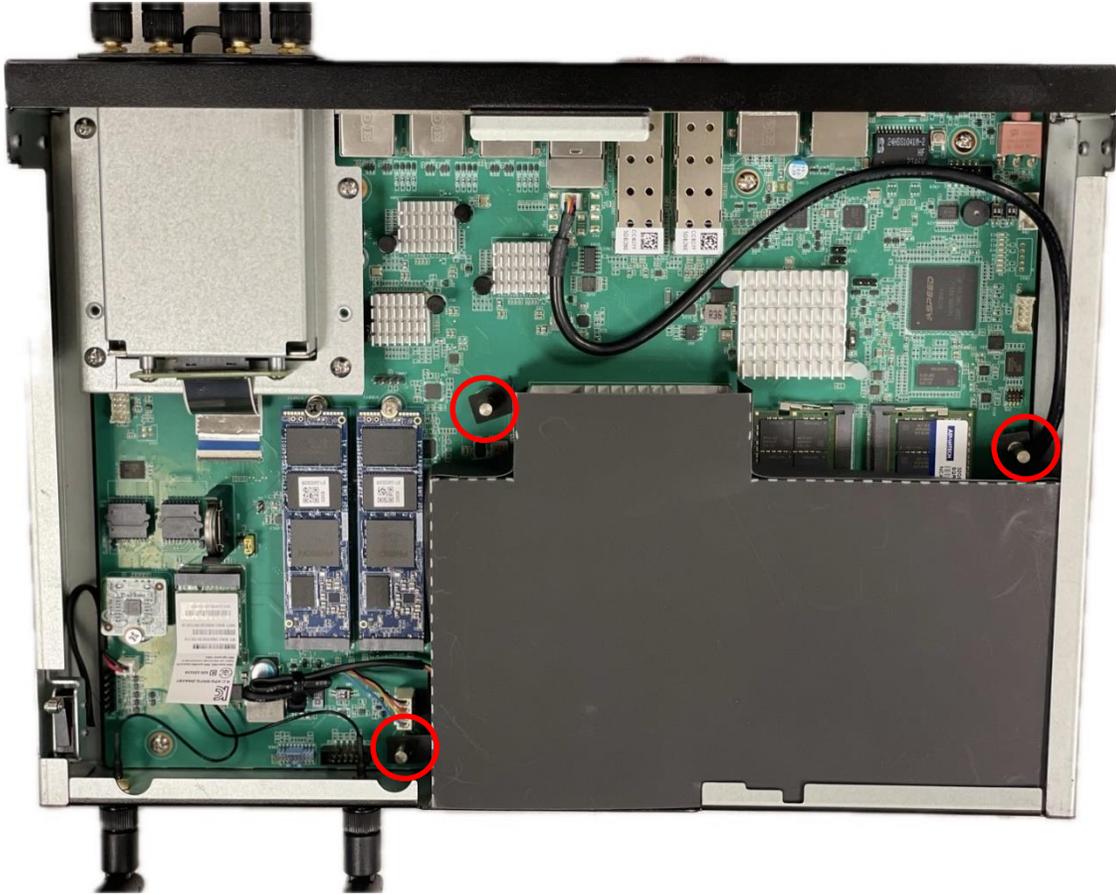
- ❑ Step #2 - Push top cover from front to rear, then remove it.



Top down without top cover.

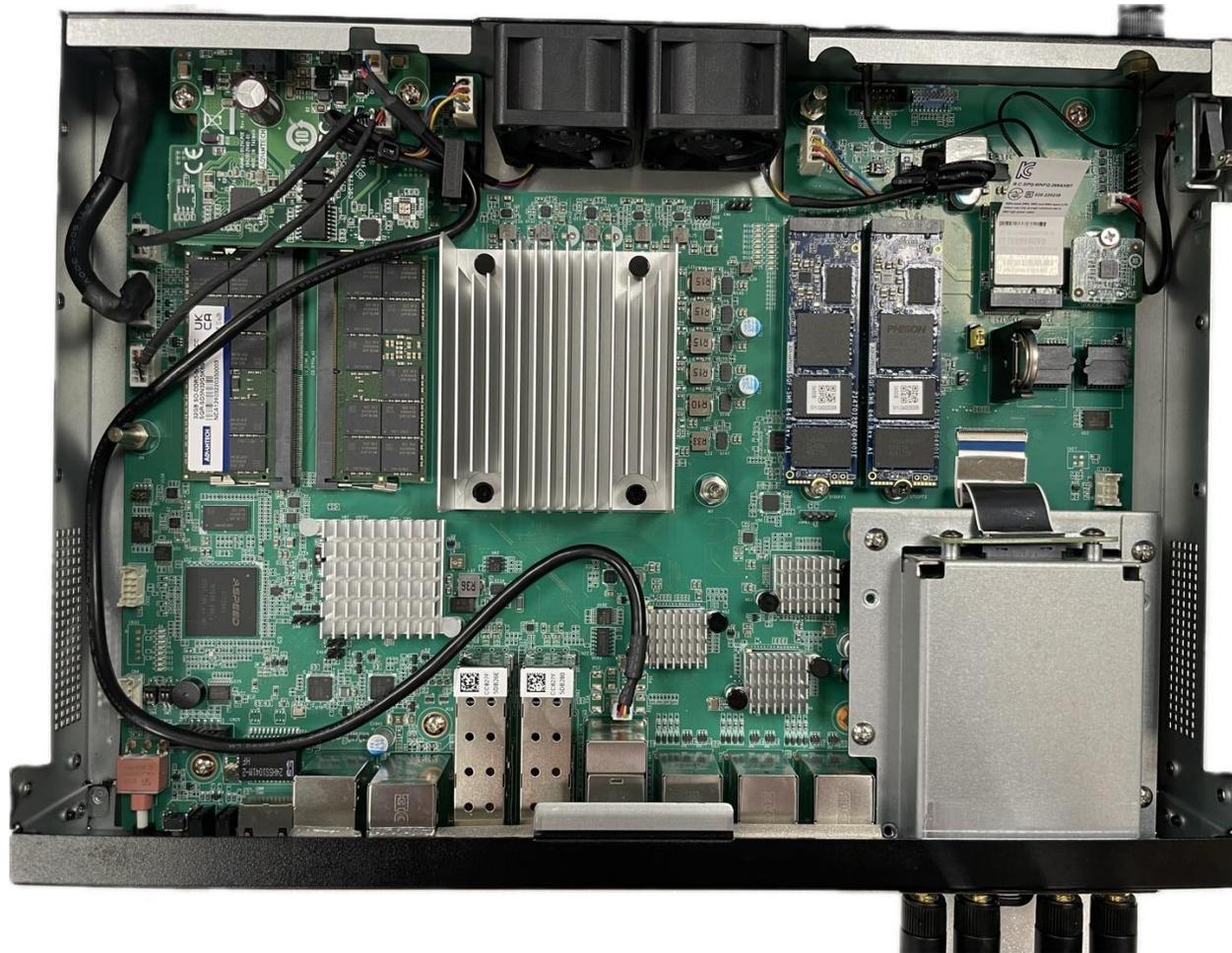
# Remove Air Duct [1/2]

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



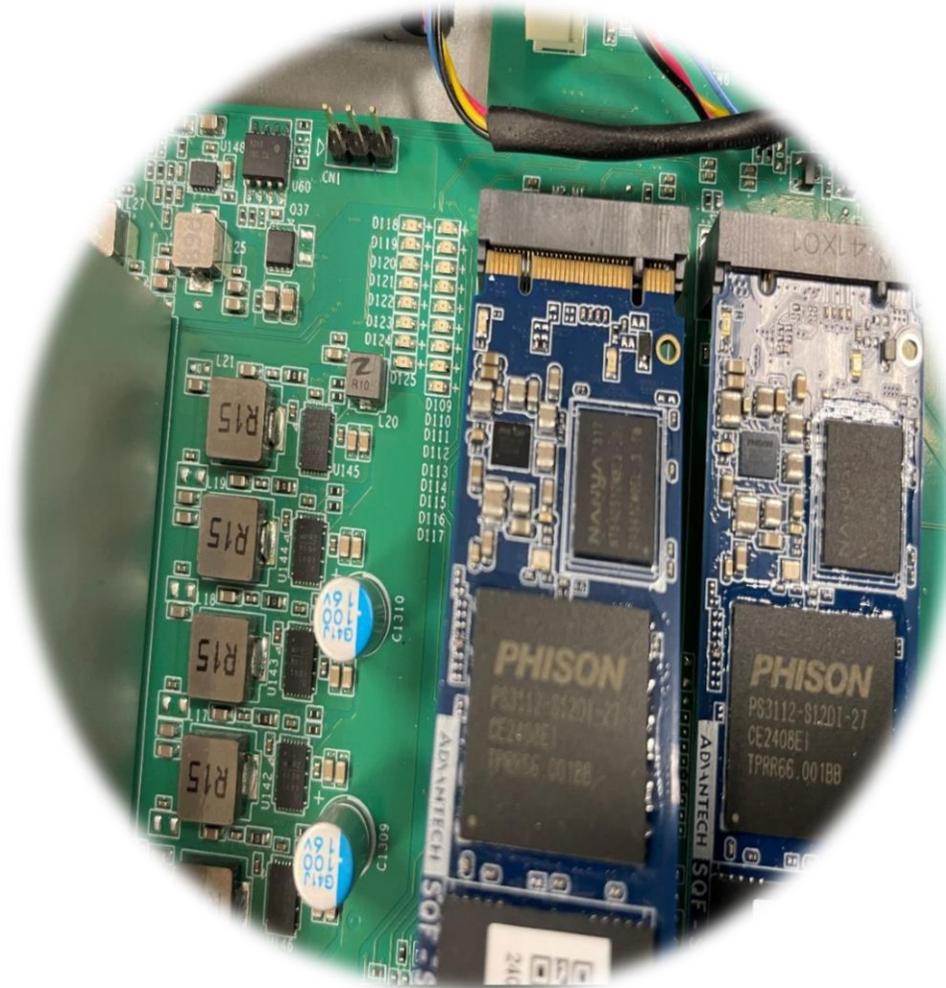
# Remove Air Duct [2/2]

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



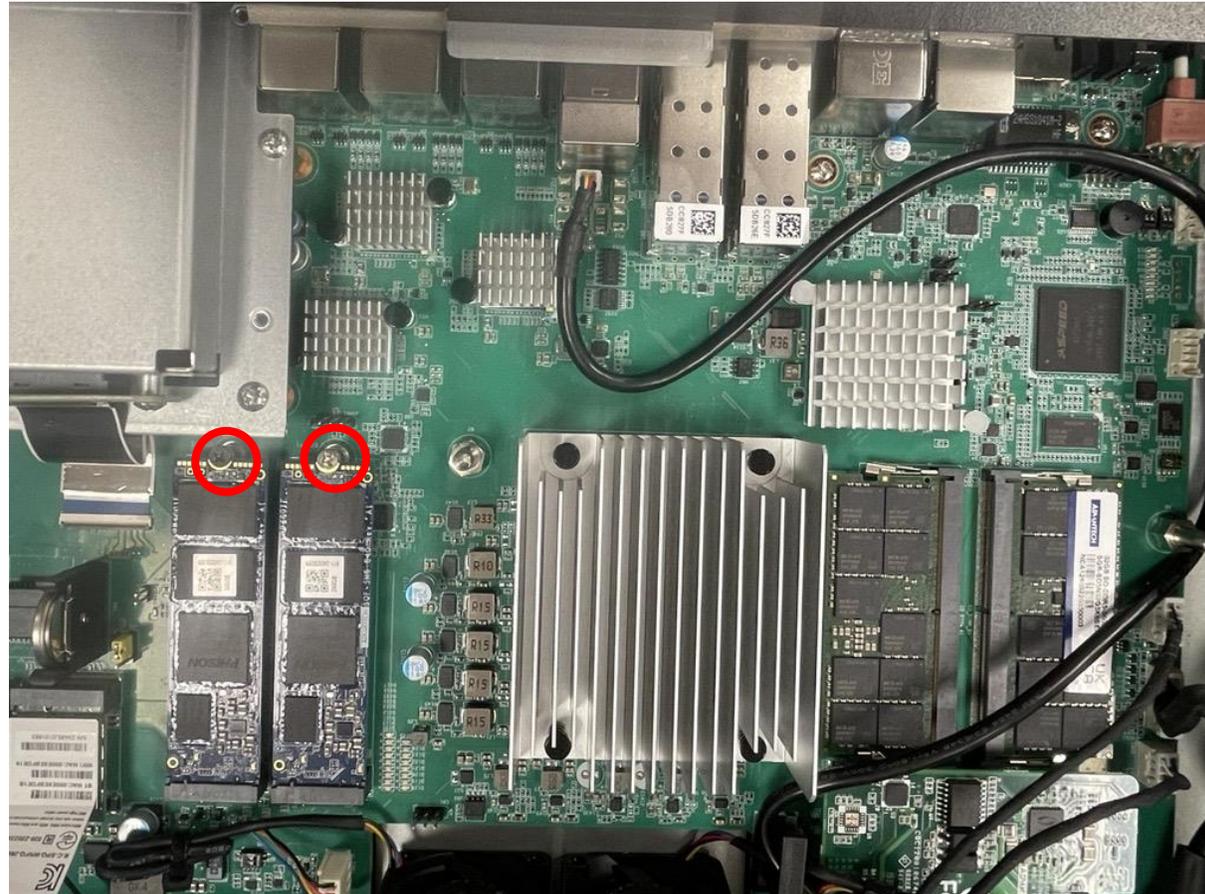
# Install M.2 disk [1/2]

- ❑ 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.



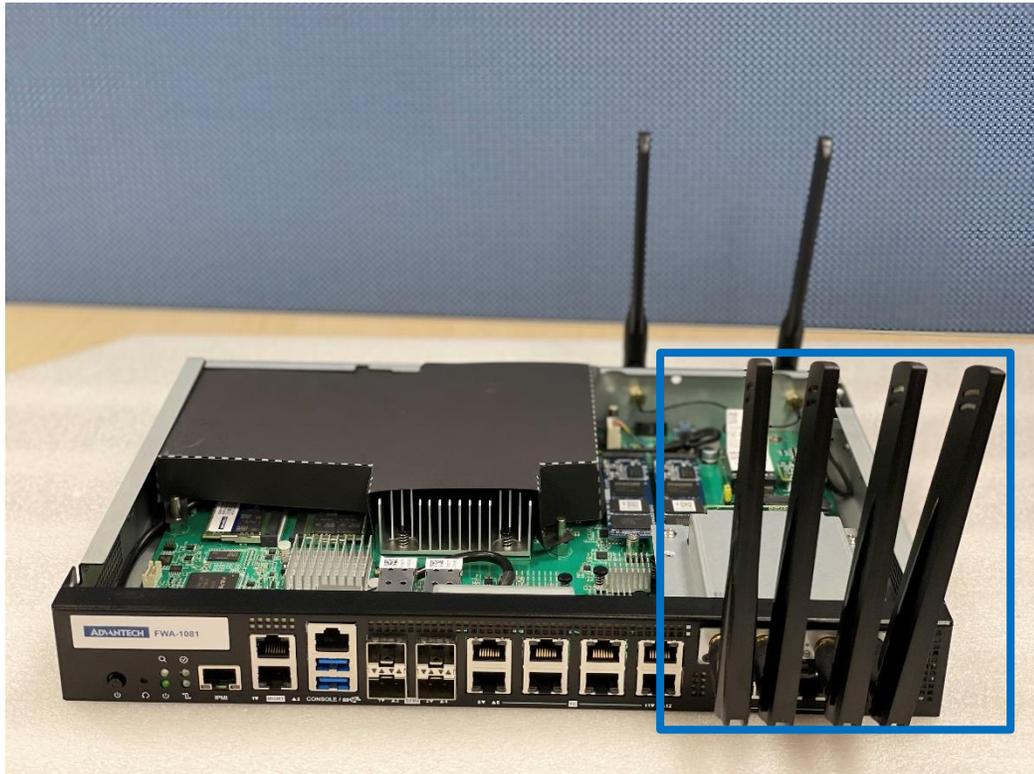
# Install TPM module [2/2]

- Step #2 - Tighten the screw after installation.



# Remove/Install NMC-R001 [1/4]

- ❑ Step #1 - Unscrew the antennas from the panel



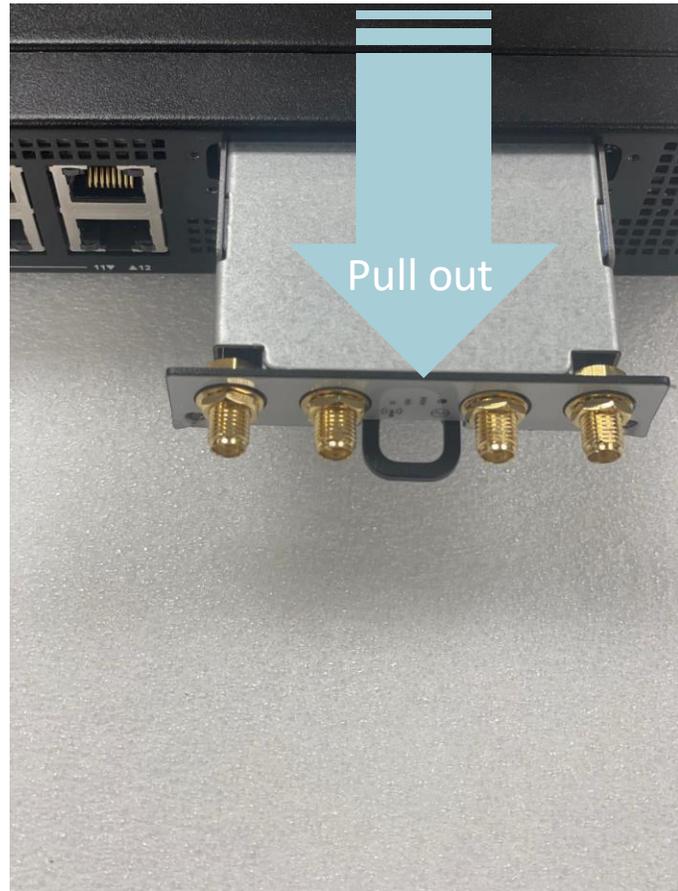
# Remove/Install NMC-R001 [2/4]

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



# Remove/Install NMC-R001 [3/4]

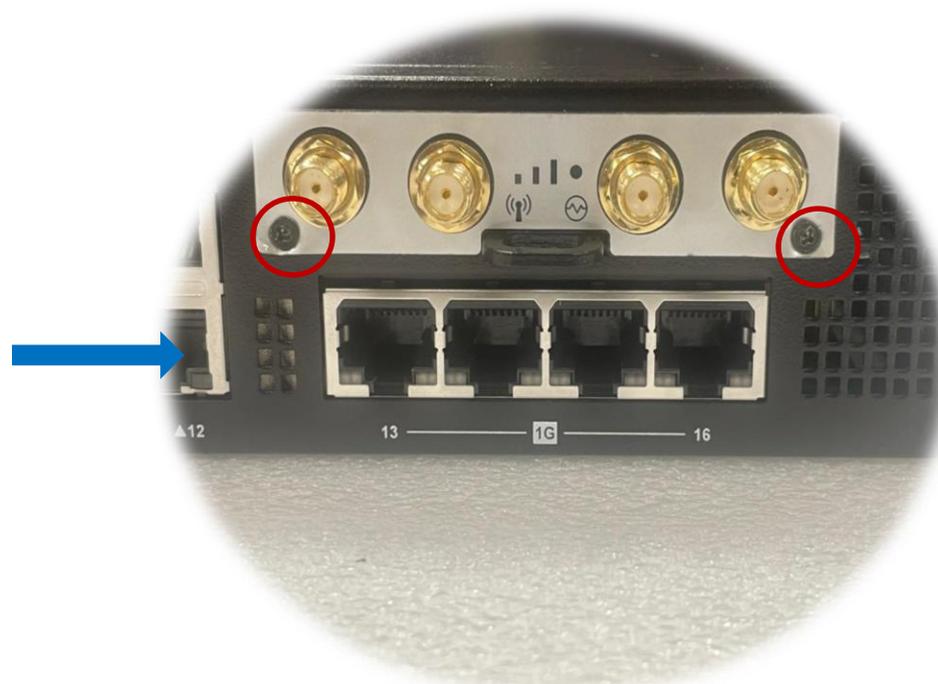
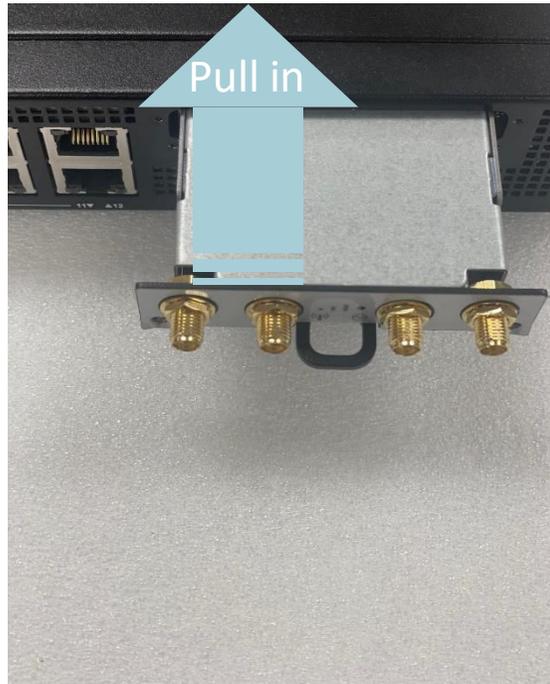
- Step #3 Gently pull the NMC out of the PCIe slot.



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.



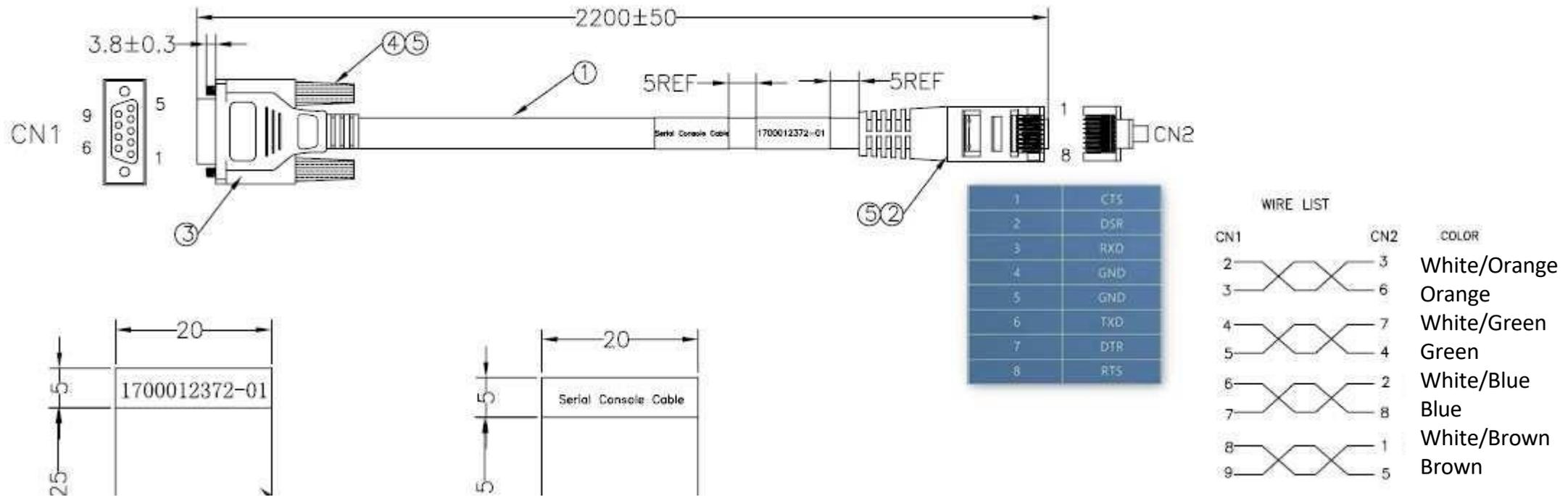
*Picture depicted how to plug in the PSU cable*



*Picture depicted the light color while device booting*

# Access the device via Console [2/3]

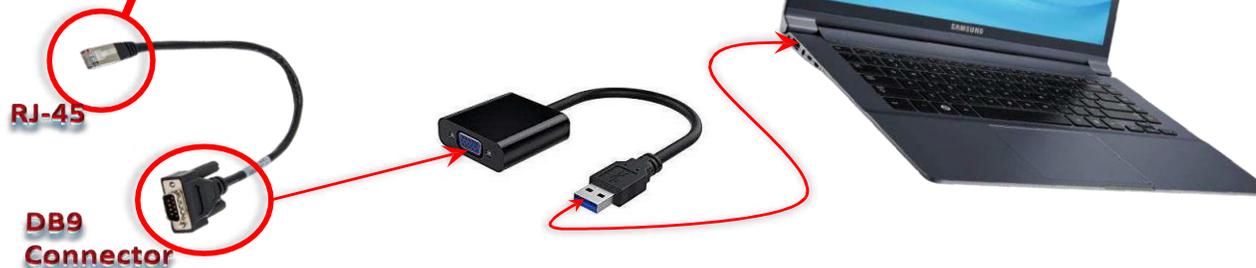
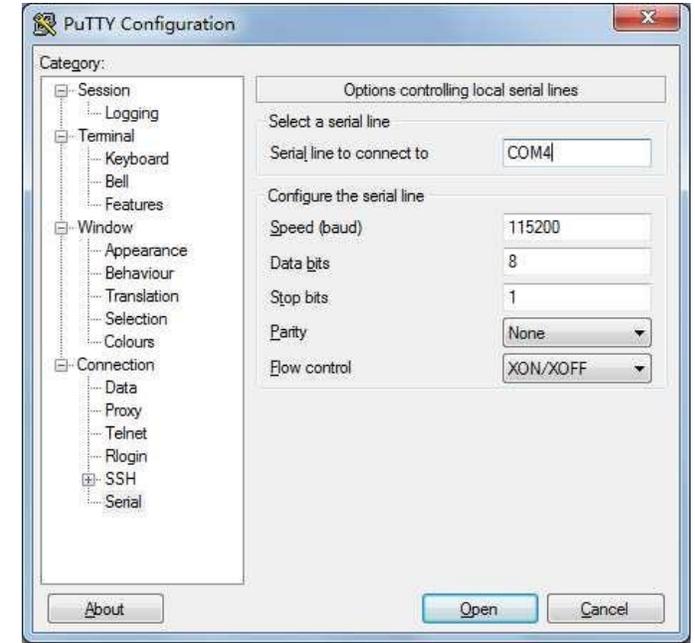
- Step#2 – prepare a console cable, check pin definition of RJ45 as below.



# 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

```
UEFI Interactive Shell v2.2
EDK II
UEFI v2.80 (American Megatrends, 0x00050016)
map: No mapping found.
Press ESC in 5 seconds to skip startup.nsh or any other key to continue.
Shell> █
```

*Picture depicted successfully server access via console*

# WebUI access

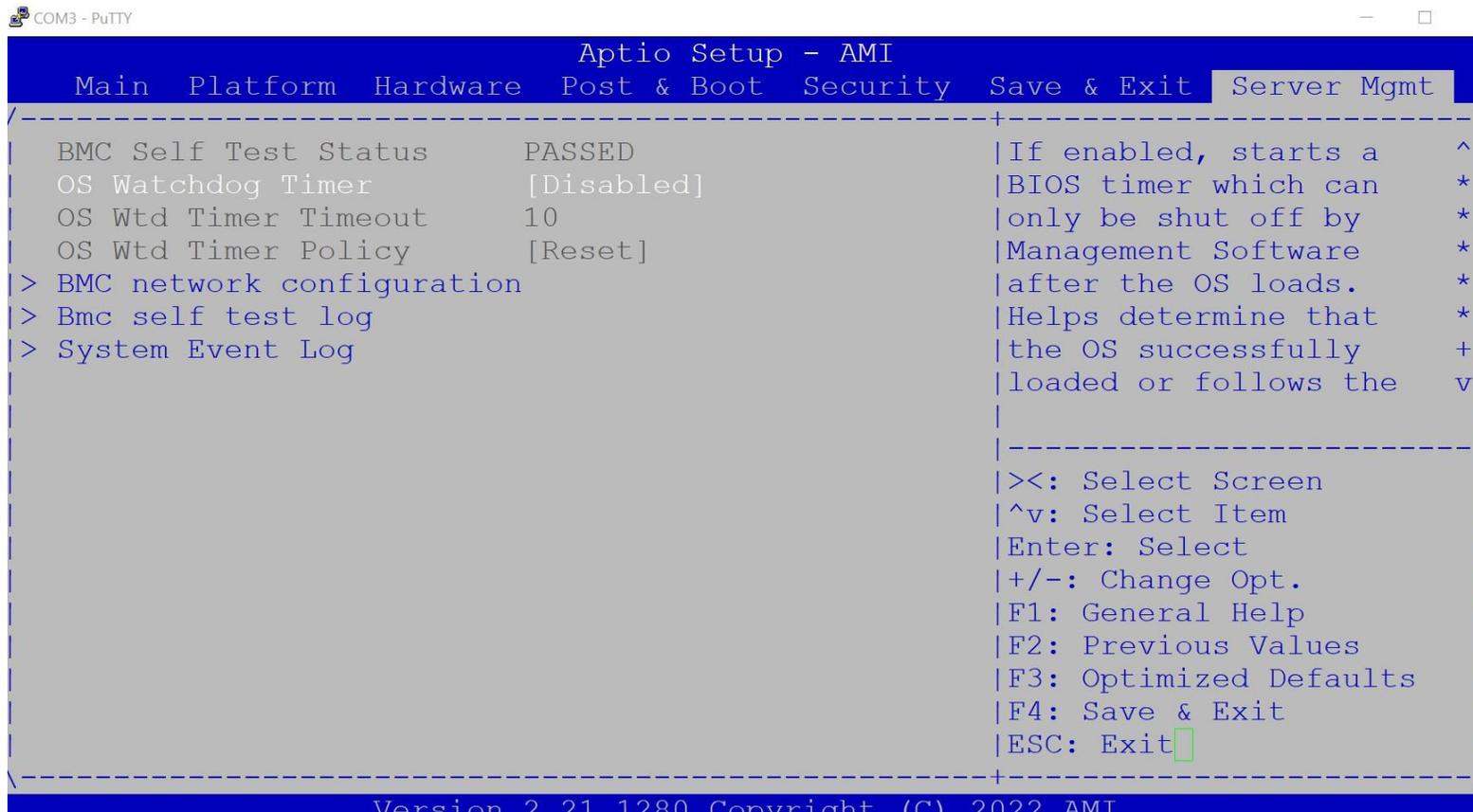
- ❑ In order to access the WebUI, we need to configure the IP address. In this part, we will describe how to set up WebUI IP address via BIOS



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**"



The screenshot shows the Aptio Setup - AMI BIOS interface. The 'Server Mgmt' menu is selected and highlighted. The menu options are:

- BMC Self Test Status PASSED
- OS Watchdog Timer [Disabled]
- OS Wtd Timer Timeout 10
- OS Wtd Timer Policy [Reset]
- > BMC network configuration
- > Bmc self test log
- > System Event Log

The help text for the BMC network configuration option is:

|If enabled, starts a BIOS timer which can only be shut off by Management Software after the OS loads. Helps determine that the OS successfully loaded or follows the

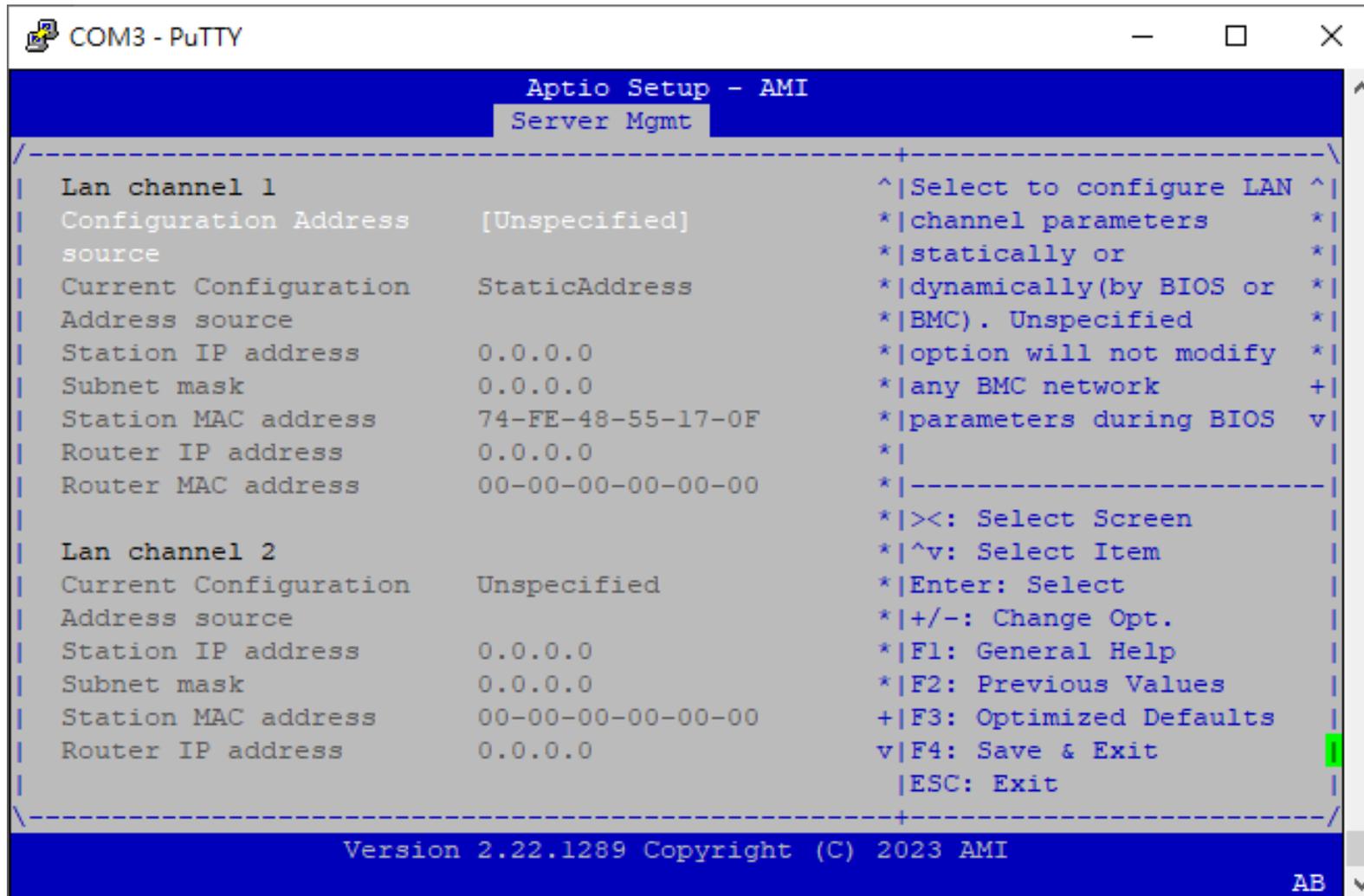
The navigation keys are:

- ><: Select Screen
- ^v: Select Item
- Enter: Select
- +/-: Change Opt.
- F1: General Help
- F2: Previous Values
- F3: Optimized Defaults
- F4: Save & Exit
- ESC: Exit

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

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



```
COM3 - PuTTY
Aptio Setup - AMI
Server Mgmt
-----+-----
| Lan channel 1                               ^|Select to configure LAN ^|
| Configuration Address [Unspecified]        *|channel parameters    *|
| source                                     *|statically or        *|
| Current Configuration StaticAddress        *|dynamically(by BIOS or *|
| Address source                             *|BMC). Unspecified    *|
| Station IP address 0.0.0.0                 *|option will not modify *|
| Subnet mask 0.0.0.0                        *|any BMC network      +|
| Station MAC address 74-FE-48-55-17-0F      *|parameters during BIOS v|
| Router IP address 0.0.0.0                  *|
| Router MAC address 00-00-00-00-00-00       *|-----+-----
|
| Lan channel 2                               *|<: Select Screen
| Current Configuration Unspecified          *|^v: Select Item
| Address source                             *|Enter: Select
| Station IP address 0.0.0.0                 *|+/-: Change Opt.
| Subnet mask 0.0.0.0                        *|F1: General Help
| Station MAC address 00-00-00-00-00-00     +|F2: Previous Values
| Router IP address 0.0.0.0                 v|F3: Optimized Defaults
|                                           |F4: Save & Exit
|                                           |ESC: Exit
|-----+-----
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AB
```



# 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

The screenshot displays the Advantech BMC WebUI interface for device FWA-1081. The interface is organized into several sections:

- Header:** ADVANTECH logo and device ID FWA-1081.
- Navigation:** Overview (selected), Health, Advanced Inventory, Sensor Status, Event Log, Web Alert, Session, Configuration, Alerts, Network, Extra Configurations, Maintenance, BMC Interface Control, RAID Management, Remote Control, System Power Control, Front Panel.
- Overview Panel:**
  - General Information:**
    - BMC Up Time: 0 Hours 27 Minutes 57 Seconds
    - BMC Booted on: June 6, 2024 13:55:50 +08:00
    - Hostname: bmc-AKS0231878
  - Firmware Versions:**
    - BL: Active : 0.32.00000000
    - BMC: Active : 0.80.00000000, Backup : 0.80.00000000
    - BMCONF: Active : 0.20.00000000
    - FPGA: Active : 0.08.00000000, Backup : 0.08.00000000
    - BIOS: Active : 0.18.00000000, Backup : 0.18.00000000
    - NVRAM: Active : 3.00.00000000
  - Software Versions:**
    - Advantech Node Explorer: 2.0.1 3609
    - Advantech iKVM: 1.11.7 400
    - Advantech Remote Storage: 1.0.13 81
    - More ...
  - Network Information:**
    - IPv4 Address: 10.234.147.1
- Footer:** OK, Power Control, BIOS Post, Refresh, English, Logout.

Node Explorer User Manual

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

# 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->

