

Falcon 5208

Installation Guide

Version 1.0
October 1st, 2021



Dear Users

Thank you for choosing our product-Falcon 5208.

The excellent quality and performance make our products superior in the like product. For you to have the good understanding to Falcon 5208, please read the user manual and operate according to the suggested steps for each feature.

If you have any questions when using our machine, please feel free to contact us. We are more than happy to serve you constantly.

Technical Support: support@h3platform.com

FAQ: <https://www.h3platform.com/>

H3 Platform Inc. mainly researches and develops PCIe switch-based technology and solutions.

---- H3 Platform Inc.

Notes, Cautions, and Warning



Note

A NOTE indicates important information that helps you make better use of your product.



Caution

A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



Warning

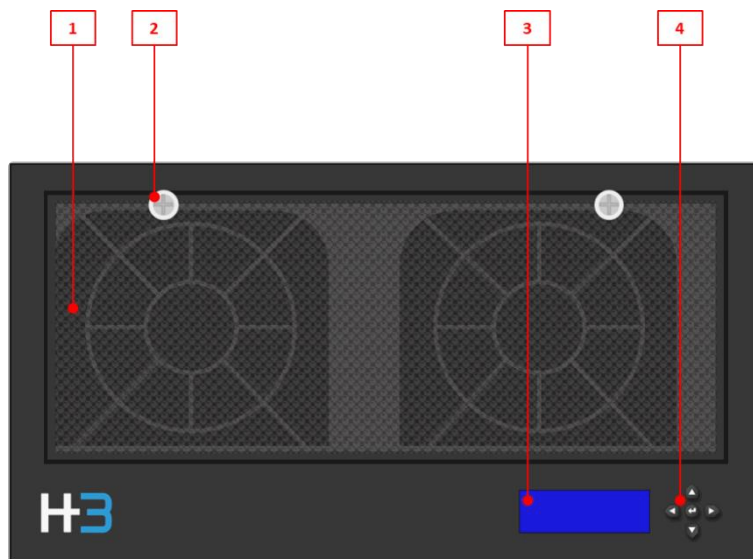
A WARNING indicates a potential for property damage, personal injury, or death.

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Chassis Overview

Front panel

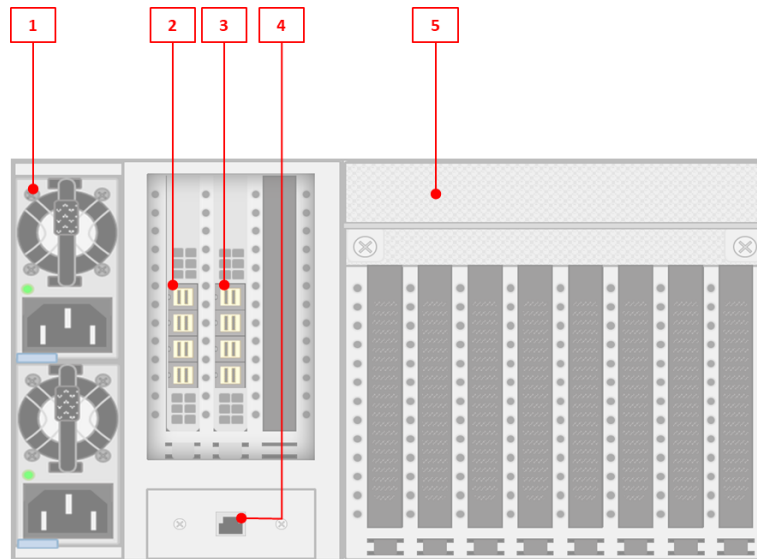


1. **Front Grill** *Holds the filter.*
2. **Hand screw** *The two hand screws hold the front grill.*
3. **LCD monitor** *Display chassis info/ operation options.*
4. **Buttons** *Select displayed info, select operations.*



Please see Falcon 5208 User Manual for detailed technical specifications.

Back panel



1. PSU *Support up to two 1200W PSU; Platinum*
2. Host port 1 *Quad SFF-8644 connectors; PCIe 4.0 x16, support bifurcation (2x8 or 4x4)*
3. Host port 2 *Quad SFF-8644 connectors; PCIe 4.0 x16, support bifurcation (2x8 or 4x4)*
4. Mgmt. port *Standard ethernet; RJ45 connector*
5. SSD drawer *Eight PCIe x8 device slot; removable; independent power control*



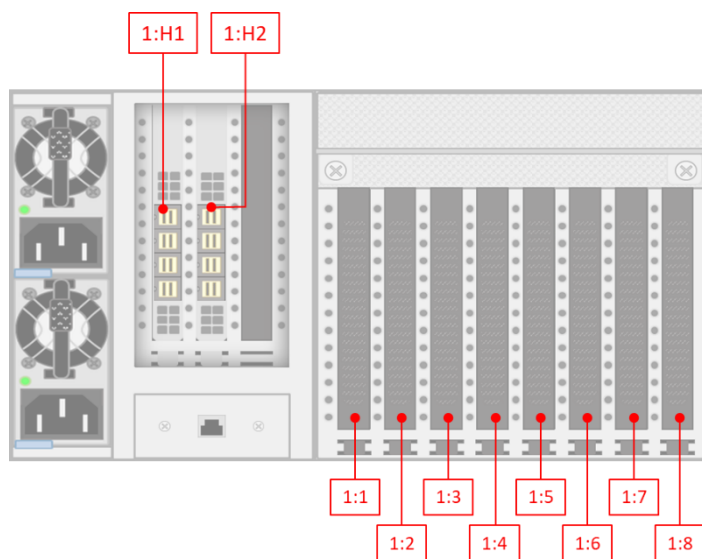
Please see Falcon 5208 User Manual for detailed technical specifications.

PCIe Port Number

Please refer to the image below to find the physical PCIe slots that is corresponding to the port numbers displayed on the GUI.

E.g.

The device installed on the slot 1:1 will be shown on GUI as "1:1 – [device name]" .

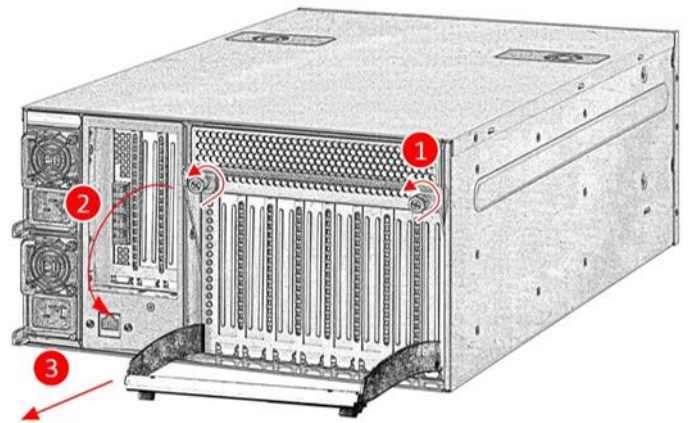


i 1:H1 is the host port 1, 1:H2 is the host port 2. Please do not install any device on the empty slot next to the host port 2.

SSD Installation


Pull out the SSD drawer

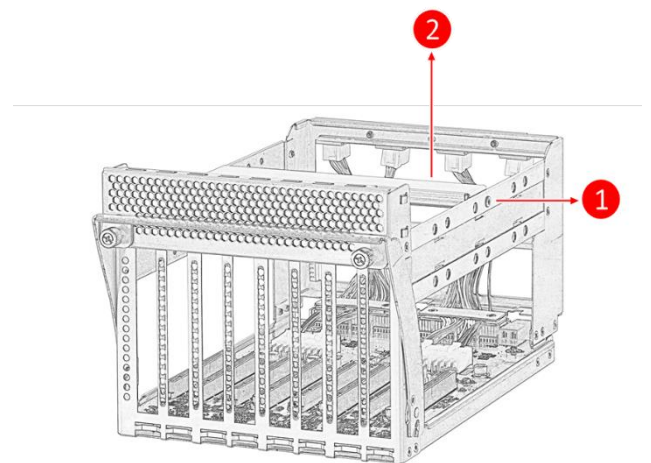
1. Loosen the hand screws.
2. Pull the handle all the way down.
3. Pull out the drawer.



Remove the stabilization plate


1. Unscrew the plate
2. Lift the plate up.


 There are screws on both sides of the plate, unscrew all of them.

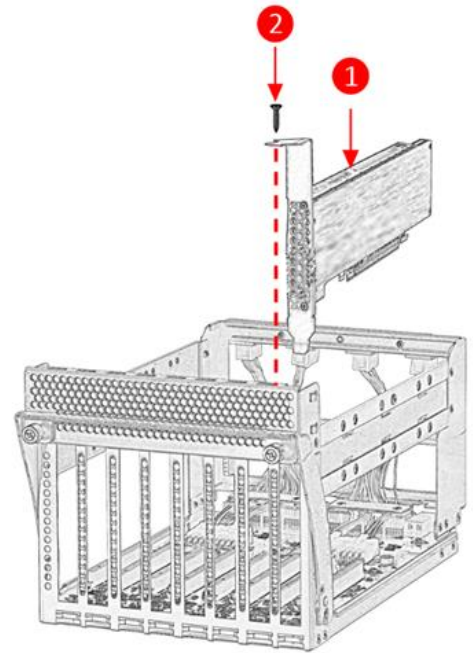


Install SSDs

1. Plug the SSD to the PCIe slot.
2. Screw the bracket.

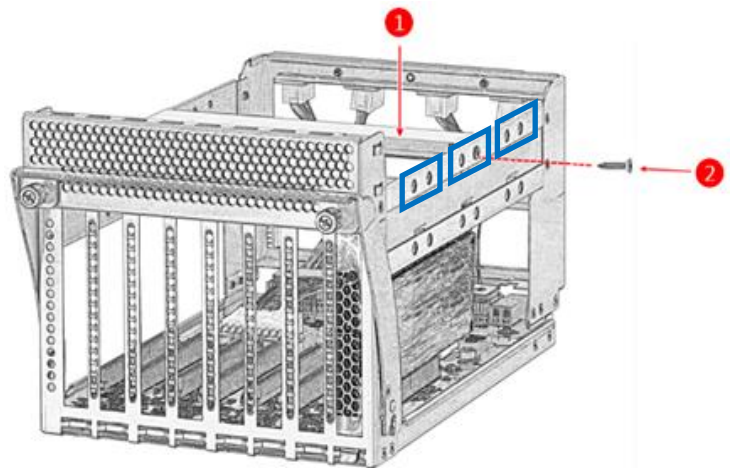
 The PCIe slots are designed for single width device. Oversized device may not fit.


 Please screw the bracket. The PCIe gold finger of the SSD could be damaged due to chassis.




Put the stabilization plat back

1. Place the stabilization plate back.
2. Put the screws back on both sides.

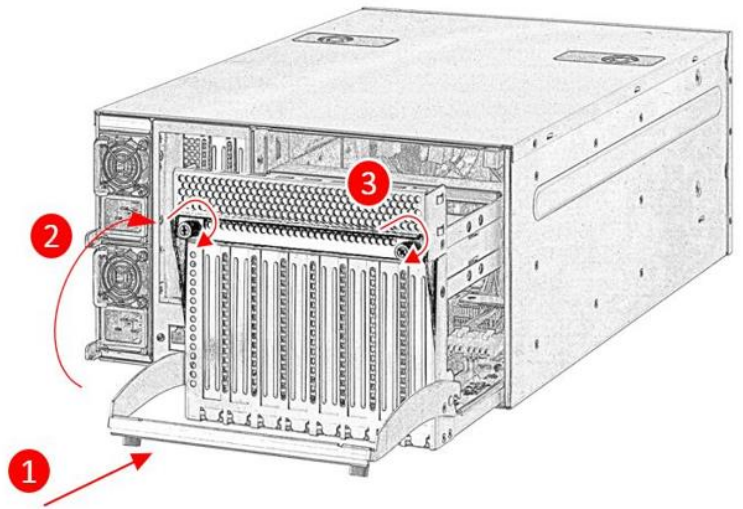



 There are screw holes on both sides of the plate, screw all of them.


 There are three positions available to put the plates on (as indicated in the right image). Pick the position that you are comfortable with.

Insert the drawer back to the chassis

1. Push the drawer into the socket.
2. Lift the handle.
3. Tighten the hand screws.

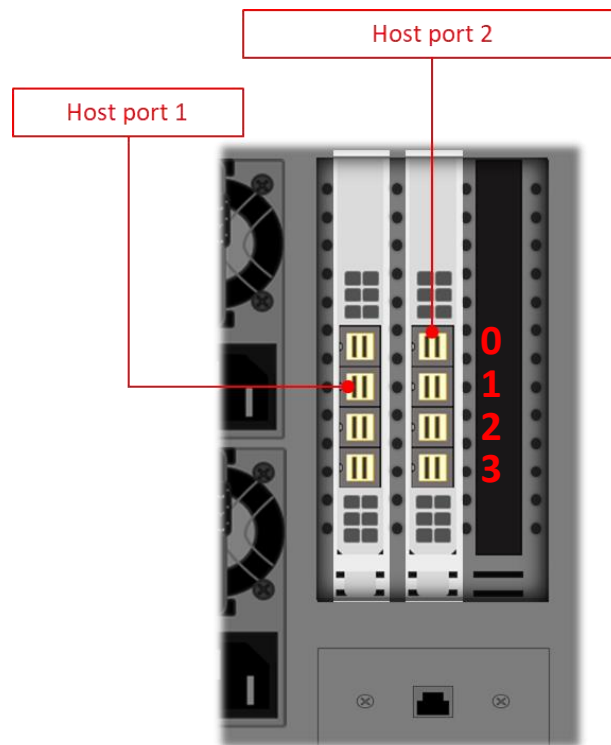



 Push the drawer until it touches the end, then lift the handle, the drawer will be further pushed into the position.


 Do not force the drawer into position without lifting the handle. The electronic components on the power connectors can be damaged.


Cabling Guide

There are two host ports on the Falcon 5208 chassis, the cabling guide is demonstrated with host port 1, applicable to both host ports. The connectors are numbered in the same order.



 Failure to follow the cabling guide may cause system error and false information on Falcon 5208 GUI.

 The machine that is connected to the host port 1 will be recognized as 1:H1.
The machine that is connected to the host port 2 will be recognized as 1:H2.

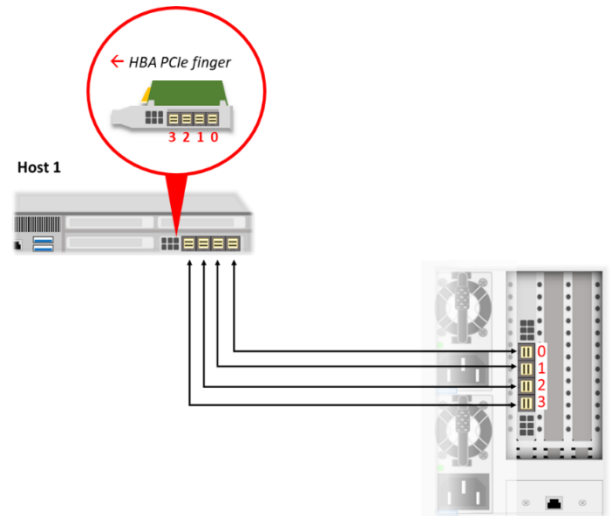
 Each host port can be bifurcated into two x8 or four x4 ports.
Users can connect 8 host machines at most to a Falcon 5208 chassis.

One PCIe x16 host

Connect the corresponding ports as shown in image

Host	-	Chassis
0	-	0
1	-	1
2	-	2
3	-	3

Image 1. Cabling for one PCIe x16 host



i The host will be recognized as 1:H1.

Two PCIe x8 hosts

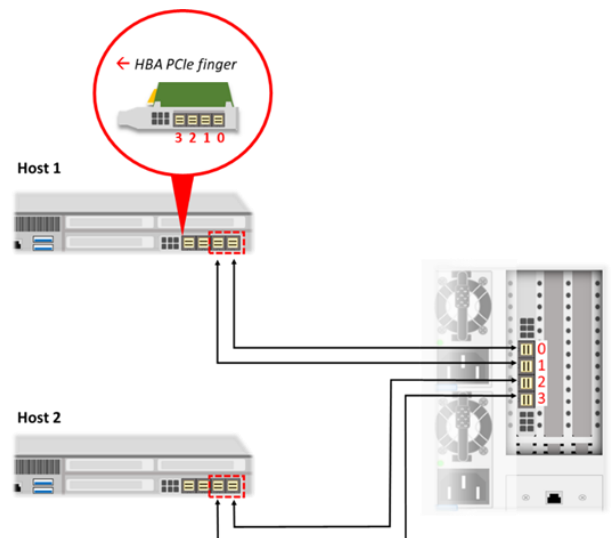
i This configuration requires port bifurcation setting to 2x8 to function properly.
 After booting up Falcon 5208, go to GUI → port configuration page
 Set the host port to 2x8 mode before power on the host machines.

Connect the corresponding ports as shown in image

Host 1	-	Chassis
0	-	0
1	-	1

Host 2	-	Chassis
0	-	2
1	-	3

Image 2. Cabling for two PCIe x8 hosts



i The host 1 will be recognized as 1:H1.0
 The host 2 will be recognized as 1:H1.1

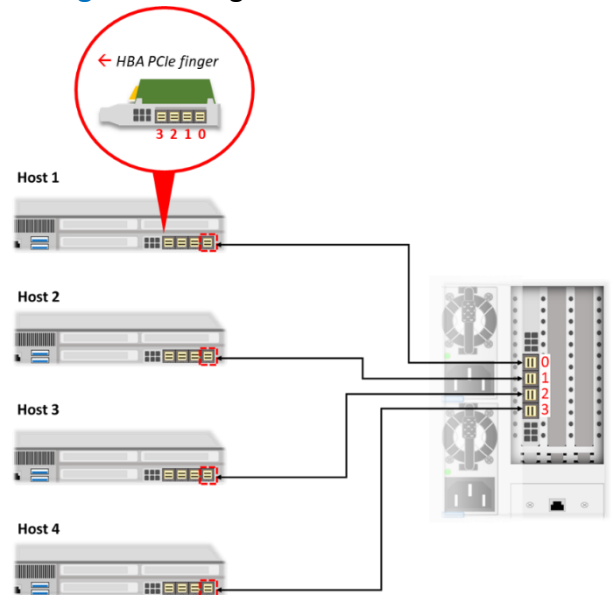
Four PCIe x4 hosts

- i** This configuration requires port bifurcation setting to 4x4 to function properly.
After booting up Falcon 5208, go to GUI → port configuration page
Set the host port to 4x4 mode before power on the host machines.

Connect the corresponding ports as shown in image

Host 1	-	Chassis
0	-	0
Host 2	-	Chassis
0	-	1
Host 3	-	Chassis
0	-	2
Host 4	-	Chassis
0	-	3

Image 3. Cabling for four PCIe x4 hosts



- i** The host 1 will be recognized as 1:H1.0
The host 2 will be recognized as 1:H1.1
The host 3 will be recognized as 1:H1.2
The host 4 will be recognized as 1:H1.3

Booting Process

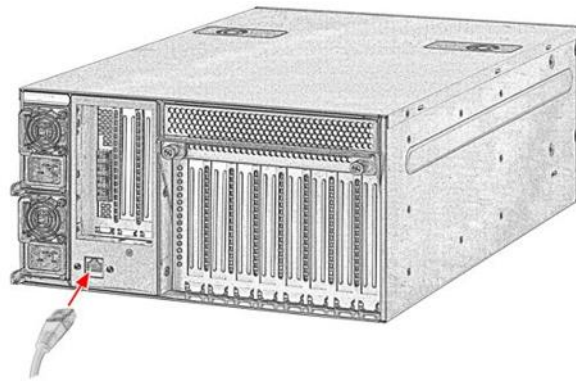


Please complete Falcon 5208 boot up before powering on any connected host machine. Improper operation may cause system errors.



It is recommended to install all devices before booting up Falcon 5208.

Connect the management port to your network

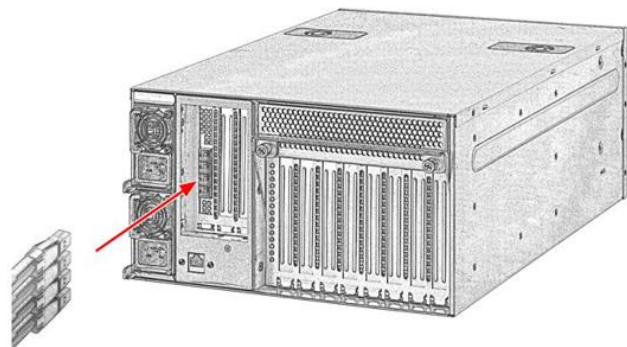
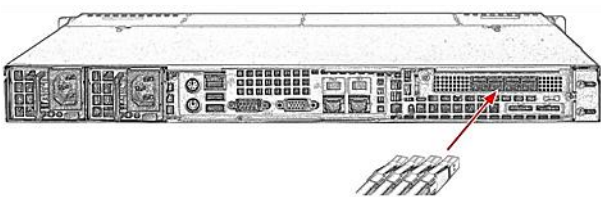


Make sure Falcon 5208 and your management device are under the same network domain.





You can connect Falcon 5208 to your network switch or to your management device directly.

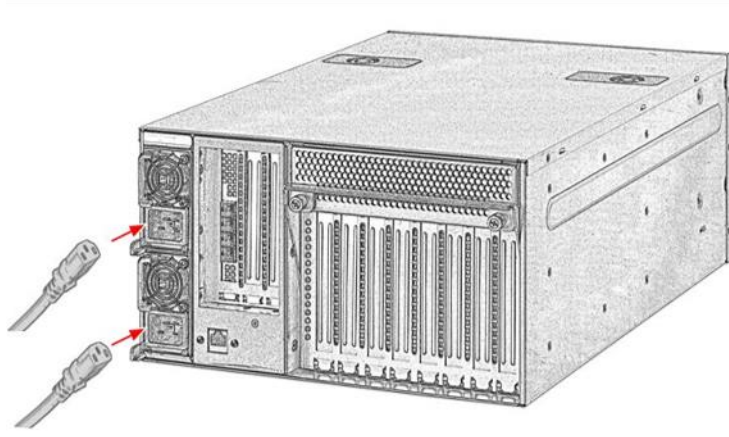
Connect Falcon 5208 to your host machine(s)





(Continue to next page)

-  A host bus adapter card (HBA) is required to be installed on your host machine(s). The actual position of HBA may look different on your host machine(s).
-  For cabling details, please see the Cabling Guide section.

Connect the A/C power to Falcon 5208

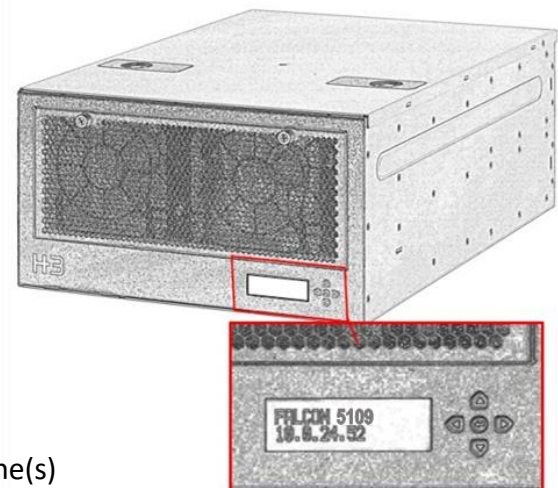



-  You may have 1 or 2 PSUs depending on your purchase. Connect **ALL** PSUs to the A/C power.
-  Falcon 5208 will start booting up upon power cords are plugged. No further action is required for this step.

Check LCD for system readiness

When the system is ready, the LCD will display the model name and the IP address.

E.g., "Falcon 5208"
10.0.24.52



-  Now you are ready to power on your host machine(s)

Warranty

H3 Platform offers free 2-year limited warranty service on our products. If the standard warranty period is not enough, H3 Platform offers optional purchase extended warranty service coverage that will provide warranty for 1, 2, or 3 additional years.

Limited Warranty

H3 Platform warrants its products against defects in material and workmanship. Under normal use and service, every hardware portion of the products will be free from physical defects in material and workmanship during the warranty period, or the product will be repaired or replaced as determined solely by H3 Platform. H3 Platform provides a limited warranty for its products only to the person or entity that originally purchased the product from H3 Platform or its authorized distributor or retailer. H3 Platform's products are PCI switches, and H3 Platform makes no warranty of the devices installed, or warranty on compatibility of all PCIe devices. H3 Platform will not be liable in any way for the loss of data stored on H3 Platform products and any damage caused by this.

Extra warranty period might be provided by H3 Platform's worldwide dealers/distributors. Please contact dealers/ distributors to purchase the extended warranty.

If a product does not operate as warranted above during the applicable warranty period, H3 Platform shall, at its option and expense (except for shipping cost), repair the defective product or part, deliver to the customer an equivalent product or part to replace the defective item. All products that are replaced will become the property of H3 Platform. Replacement products may be new or reconditioned.

Warranty does not apply, if:

1. The warranty period is expired,
2. The warranty label is broken or removed,
3. The serial number label is missing or unrecognizable,
4. The product has been modified or repaired by any unauthorized service center or personnel.
5. The defect was subject to abuse, improper use not conforming to product manual instructions, or environment conditions more severe than those specified in the manual and specification.
6. The defect was subject to Force Majeure, such as acts of God, flood, lighting, earthquake, war, vandalism, theft, brownouts or sags (damage due to low voltage disturbances)
7. Consumables, such as batteries
8. Routine cleaning, or normal cosmetic and mechanical wear
9. Damage caused by misuse, abuse, or neglect
10. Damage caused by parts that were not manufactured or sold by H3 Platform
11. Damage caused by installing devices not on the compatible list
12. Damage caused when warranted parts were repaired or replaced by an organization other than H3 Platform or by a service provider not authorized by H3 Platform.

If the customer's product is not covered under warranty, H3 Platform may offer Repair Services under the customer's payment.

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H3 Platform warrants all pre-installed H3 Platform software will execute its programming instructions when all files are properly installed. H3 Platform does not warrant that the software will be uninterrupted or error free. In the event H3 Platform software fails to execute its programming instructions during the warranty period, the customer's remedy will be either (1) replacement of the H3 Platform software or (2) a refund upon return of the product and all copies of software as well as installation instructions.

Compatibility

We have tested and verified the compatibility of third-party products and peripherals on the H3 Platform Compatibility List. Please note that the tests conducted in H3 Platform labs may not have covered every aspect and that changes to firmware or hardware may affect device compatibility and stability. H3 Platform does not guarantee the compatibility with third-party products and peripherals on the List and reserves the right to update the List at any time without prior notice.

Repair Service

Warranty and out of warranty service should be obtained by contacting the system integrator/dealer/retailer/e-retailer or distributor where the customer purchased the product. When requesting for service, the proof of purchase and the product serial number must be provided. The return of the defective product should be strictly through the original route of purchase, and the customers shall pack the product appropriately to prevent the returned product from suffering in the transportation.

There are no user serviceable parts inside the product. Do not allow any unauthorized service center or personnel to repair or modify the product. If the original channel is no longer in business or unavailable, the customer may contact H3 Platform Technical Support for international RMA services. In this case, the customer will be charged for handling fee, \$50 (USD), and all fees incurred, including two ways freight, duties, taxes and brokerage fee.

It is customer's sole responsibility to back up his/ her data. Before allowing any service from H3 Platform or its service provider, including remote login check and repairing service, the customer must back up the data and remove any of the customer's confidential, proprietary or

personal information. Neither H3 Platform nor its service provider will be liable for any damage, loss and exposure of confidential or private information or data contained in any product, hardware, software or media.

Notice of Warranty Claims

All warranty claims must be made during the applicable warranty period. Any claim made after that time will not be eligible for warranty service but may be serviced under a separate H3 Platform support contract covering the product.

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4. Third-party claims against Customer for losses or damages.
5. H3 Platform PCIe Switches are not specifically designed, manufactured or intended for sale as parts, components or assemblies for the planning, construction, maintenance, or direct operation of a nuclear facility. Customer is solely liable if Products or Support purchased by Customer are used for these applications.

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