



# XN5004T Hardware Owner's Manual

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## **Edition 1.1 (October 2018)**

This edition applies to QSAN XCubeNAS XN5004T NAS storage systems. QSAN believes the information in this publication is accurate as of its publication date. The information is subject to change without notice.

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# Notices

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The information contained in this manual has been reviewed for accuracy. It may include typographical errors or technical inaccuracies. Changes are made to the document periodically. These changes will be incorporated in new editions of the publication. QSAN may make improvements or changes in the products. All features, functionality, and product specifications are subject to change without prior notice or obligation. All statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products.

All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

## Regulatory Statements

### **CE Statement**

This device has been shown to be in compliance with and was tested in accordance with the measurement procedures specified in the Standards and Specifications listed below.

Technical Standard:            EMC DIRECTIVE 2014/30/EU Class B  
     (EN55032 / EN55024)

## FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation and used in accordance with the instruction manual may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equivalent.

## VCCI Statement

この装置は、クラス B 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。

VCCI - B

## KCC Statement

B급 기기 (가정용 방송통신기자재)

이 기기는 가정용 (B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

## Safety Warnings

1. The XCubeNAS can operate normally in the temperature of 0°C~40°C (31.99 ~ 103.99°F). Please make sure the environment is well-ventilated.
2. The power cord and devices connected to the XCubeNAS must provide a correct supply voltage (100-127V~/ 4A, 50-60Hz, 200-240V~/ 2A, 50-60Hz).
3. Do not place the XCubeNAS in direct sunlight or near chemicals. Make sure the temperature and humidity of the environment are in the optimized level.
4. Place the product right side up at all times.
5. Unplug the power cord and all connected cables before cleaning. Wipe the XCubeNAS with a dry towel. Do not use chemical or aerosol to clean the NAS.
6. Do not place any objects on the XCubeNAS for the server's normal operation and to avoid overheating.
7. Use the screws provided in the product package to lock the hard disks in the XCubeNAS when installing hard disks for proper operation.
8. Do not place the XCubeNAS near any liquid.
9. Do not place the XCubeNAS on any uneven surface to avoid falling off and damage.
10. Do not place the XCubeNAS on the ground and do not step on the system to prevent any potential damages.
11. Make sure the voltage is correct in the location where the XCubeNAS is installed. Contact the distributor or the local power supply company for the information.
12. Do not place any object on the power cord.
13. Do not attempt to repair the XCubeNAS in any occasions. Improper disassembly of the product may expose the users to electric shock or other risks. For any inquiries, please contact the distributor.



### CAUTION: (English)

Replacing incorrect type of battery will have the risk of explosion. Please replace the same or equivalent type battery use and dispose of used batteries appropriately.

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### INFORMATION:

QSAN provides a limited warranty for QSAN-branded hardware products:

- System hardware and peripheral product (s): 2 years limited warranty from date of original purchase.

For more detail warranty policy, please refer to QSAN official website:

<https://www.qsan.com/en/warranty.php>

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# Preface

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## About This Manual

This manual provides technical guidance for designing and implementing QSAN XN5004T system, and it is intended for use by system administrators, NAS designers, storage consultants, or anyone who has purchased this product and is familiar with server and computer network, network administration, storage system installation and configuration, network attached storage management and relevant protocols.

**CAUTION:**

Do NOT attempt to service, change, disassemble or upgrade the equipment's components by yourself. Doing so may violate your warranty and expose you to electric shock. Refer all servicing to authorized service personnel. Please always follow the instructions in this owner's manual.

## Related Documents

There are related documents which can be downloaded from the website.

- XCubeNAS QIG (Quick Installation Guide): <https://www.qsan.com/en/download.php>
- Compatibility Matrix: <https://www.qsan.com/en/download.php>
- XCubeNAS QSM user manual: <https://www.qsan.com/en/download.php>
- Online FAQ: <https://www.qsan.com/en/faq.php>
- White Papers: <https://www.qsan.com/en/download.php>
- Application Notes: <https://www.qsan.com/en/download.php>

## Technical Support

Do you have any questions or need help troubleshooting a problem? Please contact QSAN Support, we will reply to you as soon as possible.

- Via the Web: [http://www.qsan.com/en/contact\\_support.php](http://www.qsan.com/en/contact_support.php)
- Via Telephone: +886-2-7720-2118 extension 136  
(Service hours: 09:30 - 18:00, Monday - Friday, UTC+8)
- Via Skype Chat, Skype ID: qsan.support  
(Service hours: 09:30 - 02:00, Monday - Friday, UTC+8, Summertime: 09:30 - 01:00)
- Via Email: [support@qsan.com](mailto:support@qsan.com)

## Information, Tip and Caution

This manual uses the following symbols to draw attention to important safety and operational information.

**INFORMATION:**

INFORMATION provides useful knowledge, definition, or terminology for reference.

**TIP:**

TIP provides helpful suggestions for performing tasks more effectively.

**CAUTION:**

CAUTION indicates that failure to take a specified action could result in damage to the system.

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## Conventions

The following table describes the typographic conventions used in this manual.

Conventions	Description
<b>Bold</b>	Indicates text on a window, other than the window title, including menus, menu options, buttons, fields, and labels. Example: Click the <b>OK</b> button.
<i>&lt;Italic&gt;</i>	Indicates a variable, which is a placeholder for actual text provided by the user or system. Example: copy <i>&lt;source-file&gt;</i> <i>&lt;target-file&gt;</i> .
[ ] square brackets	Indicates optional values. Example: [ a   b ] indicates that you can choose a, b, or nothing.
{ } braces	Indicates required or expected values. Example: { a   b } indicates that you must choose either a or b.
vertical bar	Indicates that you have a choice between two or more options or arguments.
/ Slash	Indicates all options or arguments.
underline	Indicates the default value. Example: [ <u>a</u>   b ]

## 1. Overview

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Thank you for purchasing QSAN XN5004T. The QSAN XN5004T is a high-performance storage solution that features high availability, reliability, flexibility and easy management. Before setting up your new XN5004T, please check the package contents to verify those items below. Besides, make sure to read the safety instructions carefully.

### 1.1. Package Contents

Main Unit x1	
	
AC Power cord x1	RJ45 Cable x2
	
Lock Key x1	Screws for 2.5" Drives x16
	

## 1.2. XN5004T Product Overview

QSAN XN5004T is a simple, solid and stylish storage device, the device is composed of system hardware and the QSM operating system. The system hardware specifies breakthrough 4+1 (3.5" LFF<sup>1</sup> x4 + 2.5" SFF<sup>2</sup> x1) design that can benefit every workgroup and SMB user. Following is the feature list of XN5004T:

- 4+1 (3.5" LFF x4 + 2.5" SFF x1) exclusive design.
- With Intel® Celeron® 2.9GHz Dual-Core Processor.
- 8GB DDR4 SO-DIMM RAM that can be expanded up to 32GB.
- Built-in 1GbE Ethernet LAN ports x4.
- Exclusive service door for a memory upgrade.
- Screw-less design for HDD / SSD installation.

Following tables are hardware specifications of XN5004T.

Model Name	XN5004T
Form Factor	Tower, 4bay (LFF)+1 (SFF)
CPU	Intel® Celeron® 2.9GHz Dual-Core Processor
RAM	8GB DDR4 SO-DIMM (Max 32GB) Note: The pre-install memory modules may need to be replaced when expanding the memory.
USB	USB 3.0 x5 (Front x1, Rear x4)
Flash	8GB USB DOM
HDMI	1
Tray type	3.5" HDD tray with key lock x4 2.5" SSD tray x1
No. of Internal Hard Disks	4 (LFF disk) + 1 (SFF disk)
Max. Raw Capacity	14TB x4 + 2TB = 58 TB (LFF=14TB, SFF= 2TB)
Hard Drive Interface	SATA 6Gb/s (backward compatible with SATA 3Gb/s)
Expansion Slot	PCIe Gen3 x8 for 10 GbE / Thunderbolt 3 adapter card
Ethernet Ports	1GbE LAN (RJ45) x4
PSU	FLEX ATX 200W
Dimension (H x W x D) mm	177 x 190 x 235
Agency Certifications	FCC Class B • CE Class B • BSMI Class B • VCCI Class B • RCM Class B • KCC Class B

Note: Model specifications are subject to change without notice. Please refer to <http://www.qsan.com> for the latest information.

<sup>1</sup> LFF : Large Form Factor / 3.5" disk drive

<sup>2</sup> SFF : Small Form Factor / 2.5" disk drive

## 2. Hardware Overview

This chapter outlines the key hardware components of the XN5004T system. After reading this chapter, you will have a basic understanding of each XN5004T hardware component and give you the ability to configure and operate your system successfully. Following is the key components of XN5004T:

- Front and Rear Panel
- System Disk Drive Numbering
- Disk Drive Form Factors

### 2.1. Front and Rear Panel

The figure below contains the information about buttons and indicators modules.

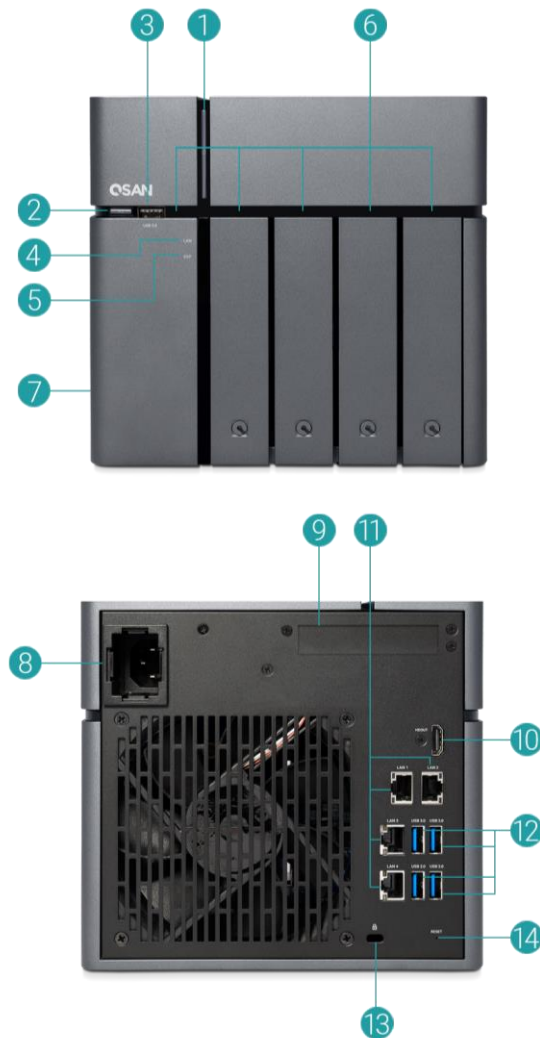


Table 2-1 Descriptions of System Controls and Indicators.

Number	Location	Description
1	Front	Power button / LED Indicator for Power and System Status
2		USB copy button / LED Indicator for USB Status
3		USB 3.0 Port
4		LED Indicator for LAN Status
5		LED Indicator for Expansion Unit Status
6		LED Indicator for HDD and SSD Status
7		Service Door
8	Back	Power Port
9		Additional PCIe Slot for Expansion (Gen3 x 8)
10		HDMI Port
11		Gigabit LAN Port
12		USB 3.0 Port
13		Kensington Lock
14		Reset to Factory Default Button

For a better understanding of the related colors and behaviors of each indicator on the front panel, please refer to the chapter 7. [LED Indicator Table](#) section.

## 2.2. System Disk Drive Numbering

The figure illustrates the XN5004T system disk drive numbering.



## 2.3. Disk Drive Form Factors

QSAN has tested and approved the popular SATA HDDs and SSD models available on the market, you have the highest flexibility to choose the most advanced HDDs or SSD available from the manufacturers or purchase the best cost/performance SATA HDDs or SSD from the market, it will significantly reduce your IT infrastructure investment cost. Please refer to the following website for the compatibility of HDD and SSD:

<https://www.qsan.com/en/download.php?cid=5>

Table 2-2 Supported Disk Drive Types

Form Factor	Number of Trays	Supported Drive Type
Type1: 3.5" LFF Tray	4	3.5"/2.5" SATA HDD
		2.5" SATA SSD
Type2: 2.5" SFF Tray	1	2.5" SATA SSD



### TIP:

1. 2.5" SATA drives can also be installed on 3.5" LFF trays.
2. If you would like to maximize volume space with RAID being set, we recommend that all your installed drives be the same size.

## 3. Install the System Hardware

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This chapter will show you the procedure of the XCubeNAS hardware installation and initial configuration.

### 3.1. Install the Disk Drive in the Tray

#### 3.1.1. Tools and Parts for Drive Installation

- At least one 3.5" or 2.5" SATA drive (please visit [www.qsan.com](http://www.qsan.com) for compatible drive models).
- A screwdriver (Phillips #1, for installing 2.5" SATA drive on LFF only).

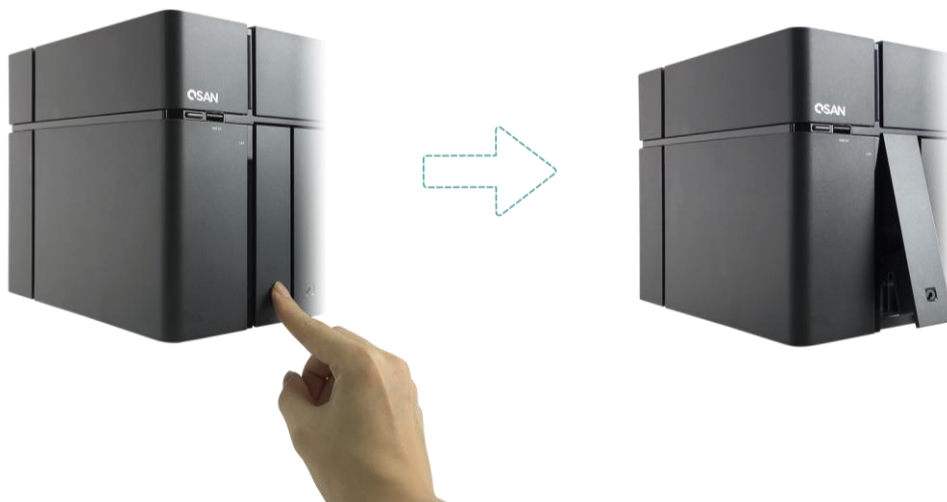
**CAUTION:**

Please ensure that there is no data on the disk to prevent important data being formatted

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#### 3.1.2. Install the Disk Drive (LFF)

1. Open the drive tray.
  - ① Push to release the carrier handle.

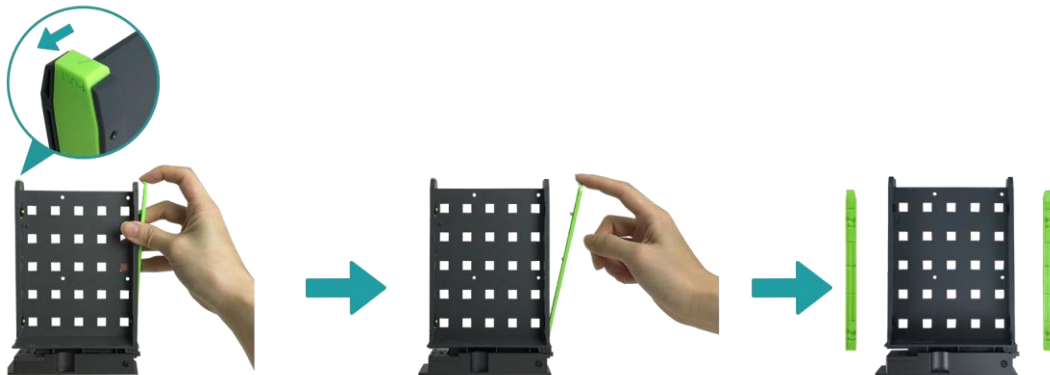


- ② Hold the carrier handle and pull out the disk drive tray, repeat the steps above to remove other disk drive tray.



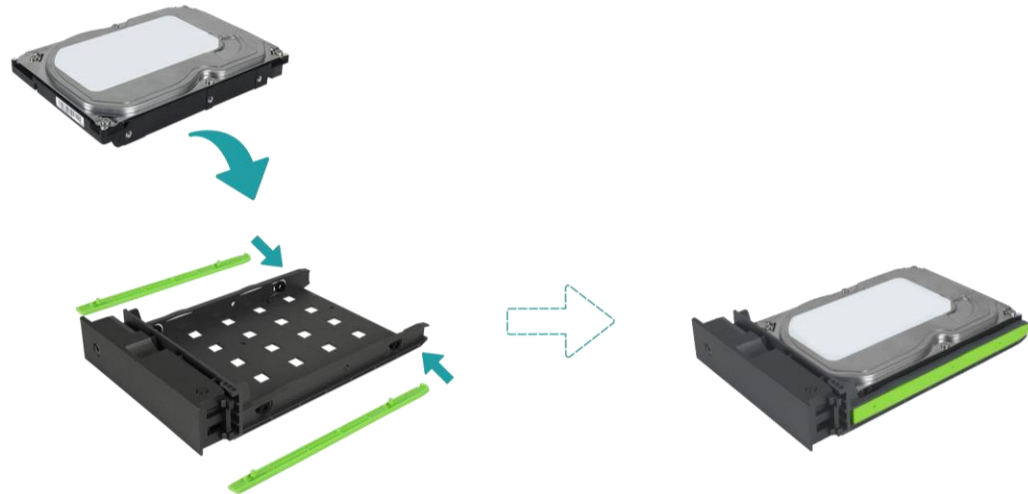
## 2. Install a 3.5" HDD into a LFF tray.

- ① Remove both brackets from each side of the tray by following the arrow direction shown on the bracket (please see the figure below).



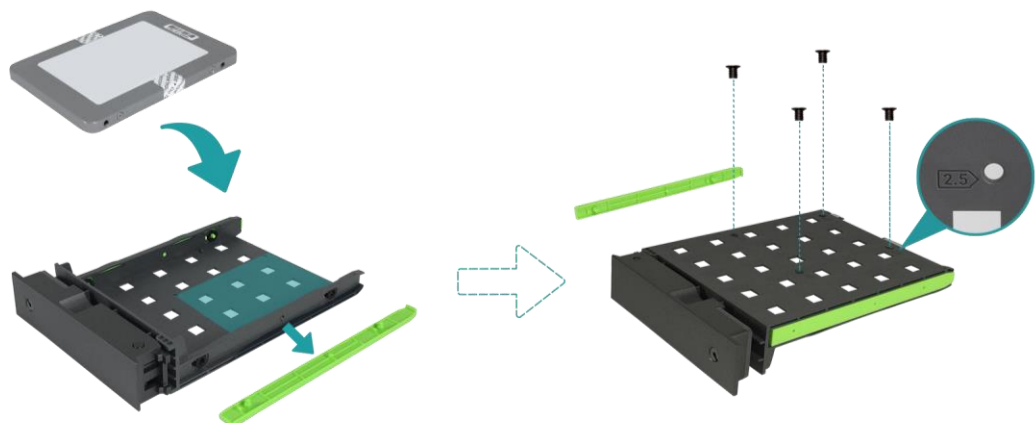


- ② Place the drive on the tray and clip-in both brackets to tighten the disk drive to the tray.

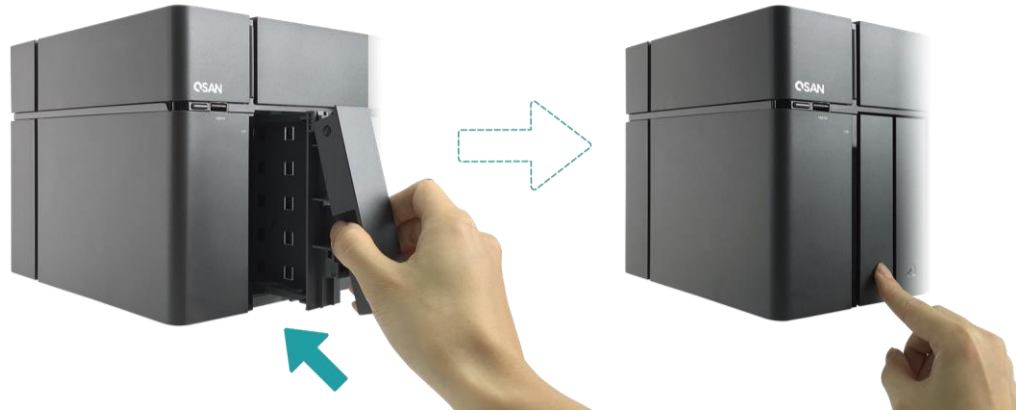


### 3. Install a 2.5" SSD into a LFF tray.

- ① Only remove the bracket next to the 2.5" screw holes (they are marked on the bottom of the tray).
- ② Place the drive in the blue area (shown below) of the tray.
- ③ Turn the tray upside down and secure the drive from the bottom of the tray with four screws provided in the accessory box.



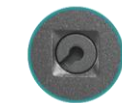
4. Install a LFF tray into the XCubeNAS.
  - ① Insert the loaded drive tray into the empty drive bay all the way to the bottom until the carrier handle can be closed.



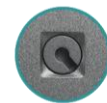
### TIP:

Make sure the tray is pushed in all the way, otherwise the drive might not function properly.

5. Repeat the steps above to install all prepared drives.
6. Lock/unlock the LFF tray.
  - ① Use the key provided in the accessory box to lock/unlock the carrier handle lock.



unlocked 

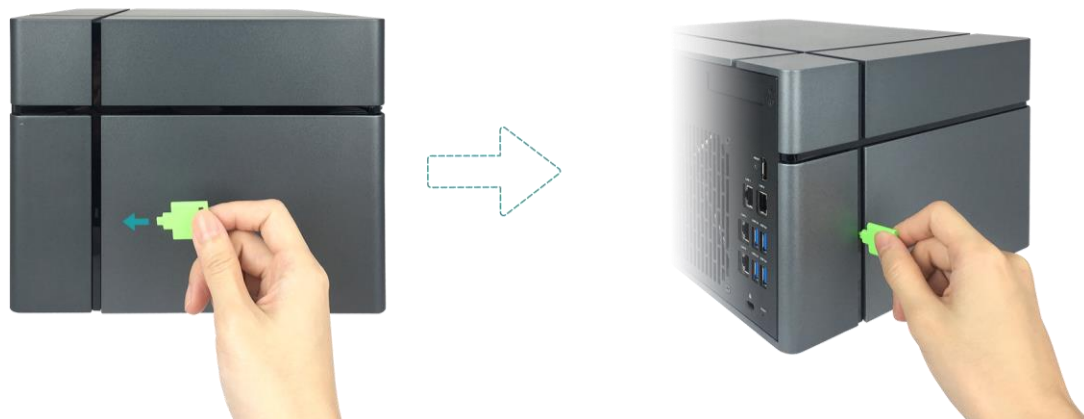


locked 

### 3.1.3. Install the Disk Drive (SFF)

1. Open the service door and pull out a SFF tray.

① Use the key provided in the accessory box to press the door button.

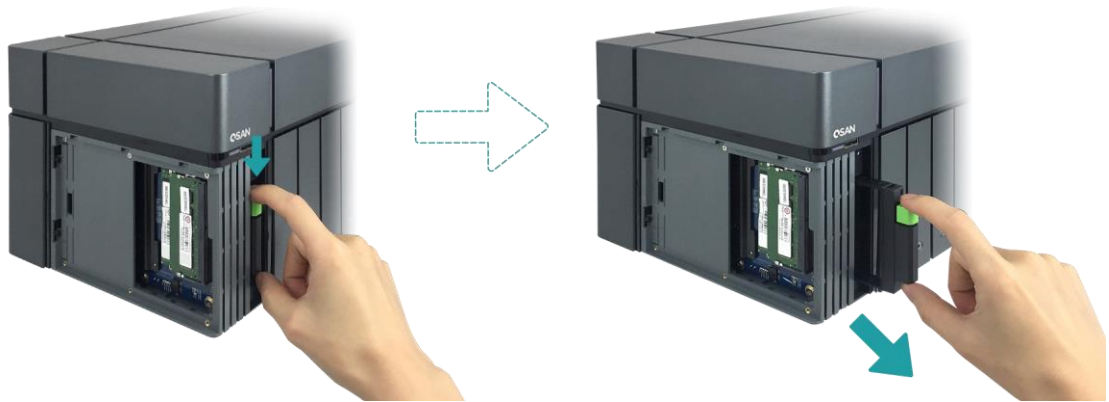


② Remove the service door.

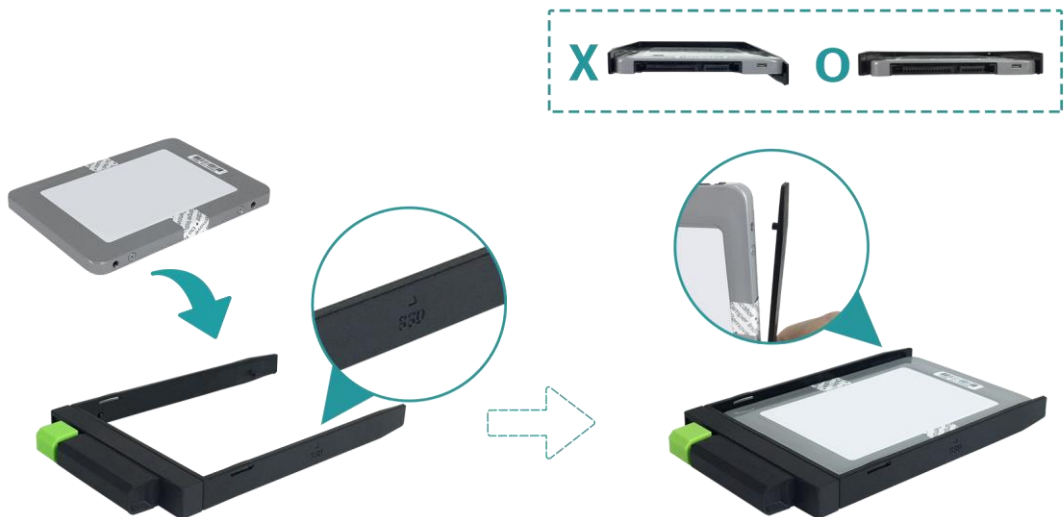


2. Install a 2.5" SSD into a SFF tray.

- ① Hold down the release button and pull out the disk drive tray from the XCubeNAS.

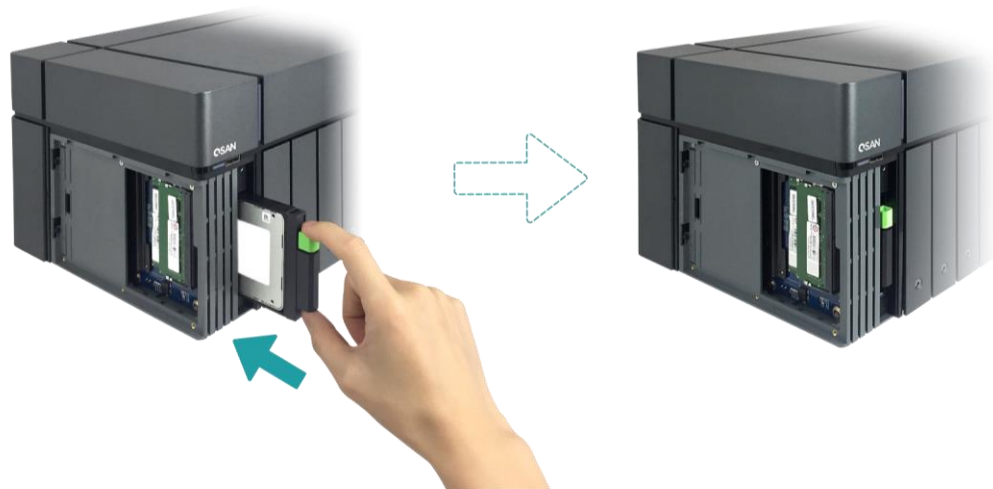


- ② Follow the mark shown on the side of the SFF tray and place the SSD with its label side facing accordingly.
- ③ Secure the disk drive by making sure the four pins on the side of the SFF tray is clutched to the disk drive.



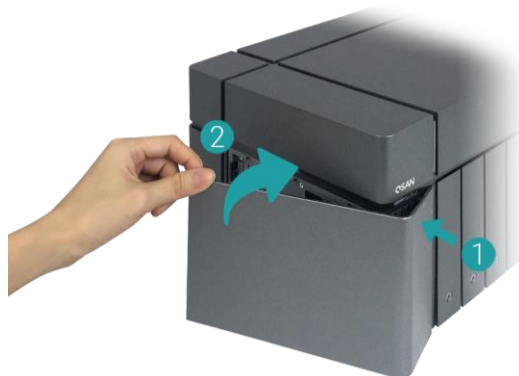
3. Install a SFF tray into the system.

- ① Insert the loaded drive tray into the empty drive bay all the way to the bottom until you hear a “click” sound.



4. Close the service door.

- ① Follow the steps below by closing the service door from the front.
- ② Once the door is clutched to the front of the NAS, close the door until you hear a “click” sound.



## 3.2. Upgrade Memory



### CAUTION:

- The following instructions should only be performed by an authorized and trained technician. Strictly adhere to the instructions to install a RAM module on the NAS.
- Before you start, please ensure that you turn off the NAS, disconnect the power adapter, network cable(s), and also remove any other device/cable that is attached to the NAS.

XN5004T is installed with two 4GB DDR4 memory module by default, dual channel performance is also supported. In order to achieve dual-channel RAM performance, it is suggested that you install memory modules with the same capacity in pairs. If you want to expand the memory capacity, please follow the steps as illustrated below:

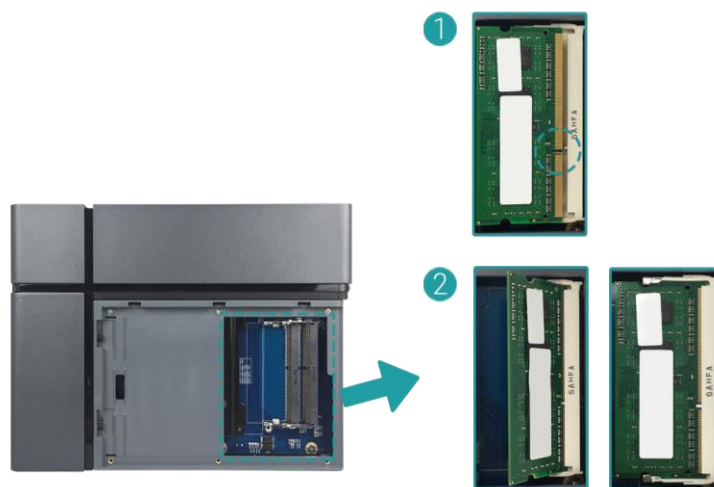
1. Shutdown your XCubeNAS and disconnect power adapter, network cable(s) or any other device/cable that is attached to your system to prevent any possible damages.
2. Use the key provided in the accessory box to press the door button and remove the service door.



3. Remove existing memory module(s).
  - ① Push the retaining clips on each side of the slot, the existing memory module will pop out from the slot.
  - ② Take out the memory module.

4. Installing the memory module.

- ① Align the notch on the gold edge of the module.
- ② Slide the memory module into the slot at a 45-degree angle. Press the memory module down until it clips into place. Ensure the memory module sits properly with the retention clips in place.



The following table is the suggested installation combination for memory.

Table 3-1 The Suggested Installation Combination for Memory

Slot #1	Slot #2	Total Memory
4GB	4GB	8GB (Default)
8GB	8GB	16GB
16GB	-	16GB
16GB	16GB	32GB



**CAUTION:**

To ensure the system stability, you MUST install genuine QSAN memory modules for system memory size expansion.



**INFORMATION:**

- (1) If you want to purchase the optional memory, please contact your nearest local reseller or visit QSAN official website: <https://qsan.com/location>
- (2) See the recommended memory module from the QSAN official website: <https://www.qsan.com/en/download.php>

## 3.3. Install the Optional Adapter Card

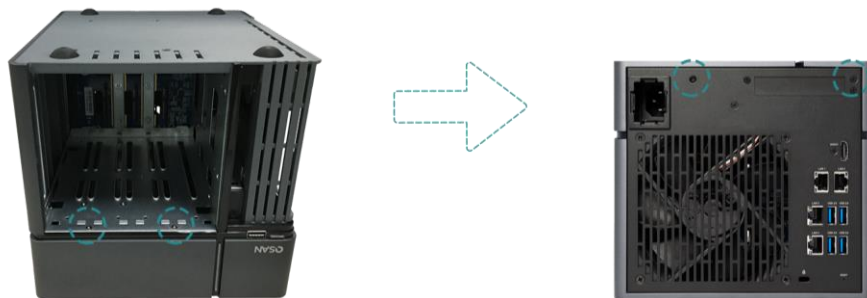


### CAUTION:

This section is for QSAN authorised partners (including distributors, resellers and systems integrators) ONLY. Warrently may void if the warrently label is broken. If you would like to purchase optional adapter cards and have it installed, please contact local QSAN authorised partners, or QSAN support for detailed information.

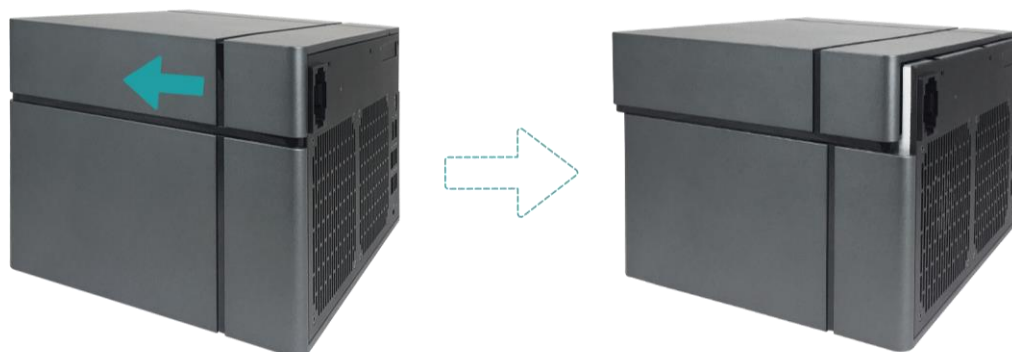
XCubeNAS supports a PCIe Gen 3x8 add-on adapter cards that demand high bandwidth and capacity expansion. To install the adapter card, please follow the steps as illustrated below:

1. Prepare a Phillips #1 screwdriver.
2. Shutdown your XCubeNAS and disconnect power adapter, network cable(s) or any other device/cable that is attached to your system to prevent any possible damages. Place your XCubeNAS on a flat and stable surface to prevent scratches.
3. Please refer to [chapter 3.1](#) to remove the service door, SFF tray, and all the drive trays.
4. Removing screws and the top cover.
  - ① Turn your XCubeNAS upside down and remove two screws below the top cover, shown in the figure below.
  - ② Remove the screws on the back of the XCubeNAS.





- ③ Slide to remove the top cover, put the cover aside.

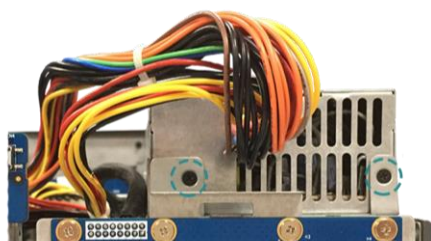


5. Removing the power supply and its bracket.

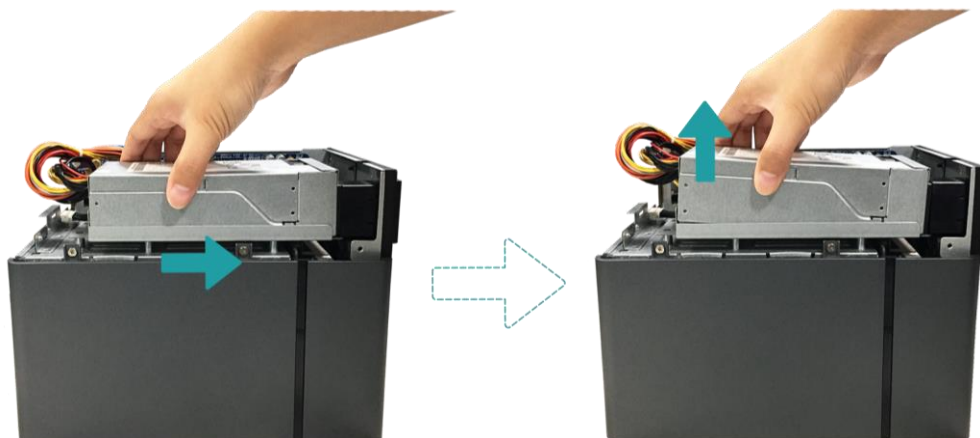
- ① Remove the screw securing the power supply on the back of the XCubeNAS.



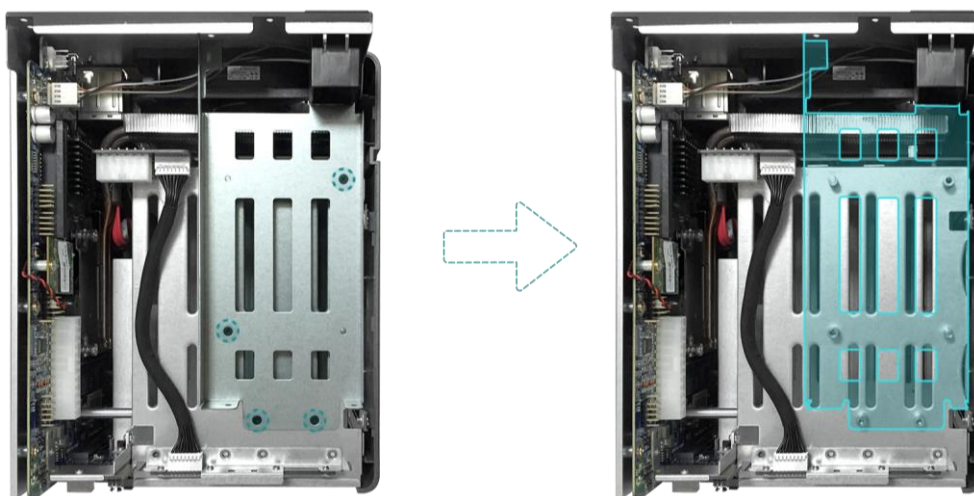
- ② Remove the screws on the power supply.



- ③ Slide to remove the power supply.



- ④ Remove the 4 screws then take out the bracket.



6. Remove the two expansion slot cover screws.

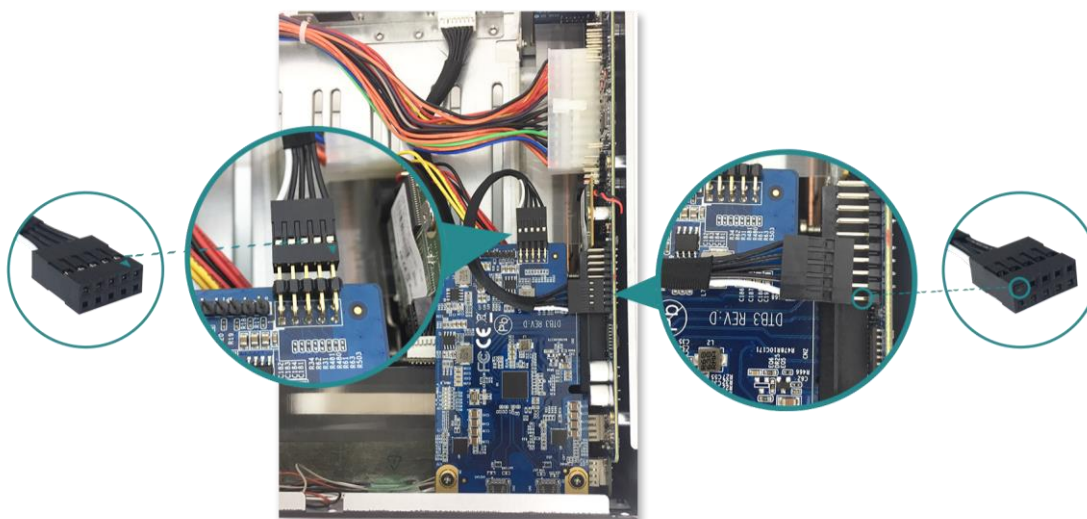


7. Align and insert the card connector into the expansion slot.

**CAUTION:**

Make sure the connector is fully inserted. Otherwise, the network expansion card might not be able to function properly.

8. Put back the bracket and tighten the screws and that you removed in step 5 and 6 to secure the newly inserted card.
9. For thunderbolt 3 adapter card only, connect the cable from the adapter card to the mainboard.
  - ① Align the connectors. Please make sure that the position is the same as the figure shown below.



- ② Push to connect the cable and the connectors.
10. Slide to put back the top cover you removed in step 4, put back and tighten the screw on the XCubeNAS.



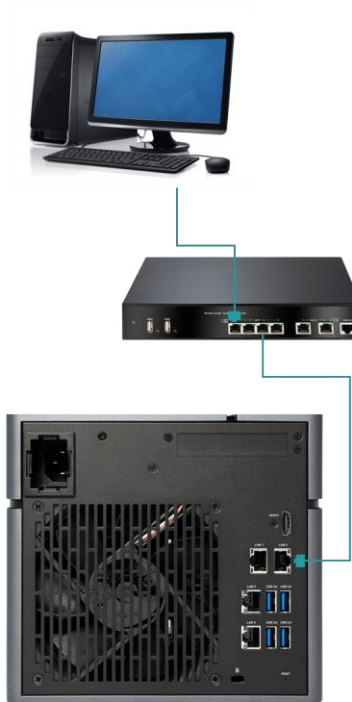
## INFORMATION:

- (1) If you want to purchase the optional adapter card, please contact your nearest local reseller or visit QSAN official website:  
<https://qsan.com/location>
- (2) See the recommended adapter cards from the QSAN official website:  
<https://www.qsan.com/en/download.php>

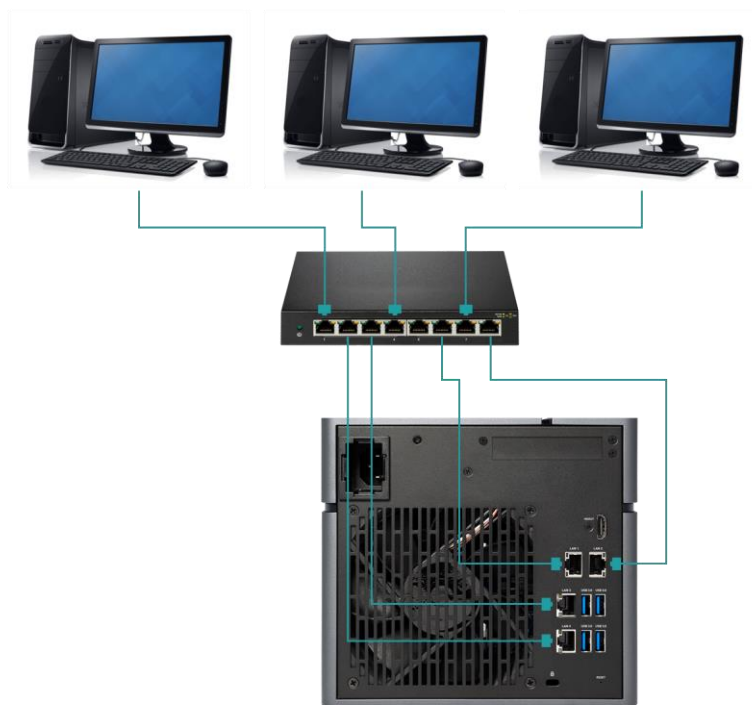
## 3.4. Connect the System to the Host

XN5004T has four onboard 1Gbps LAN ports for host connections. You can learn more about the path configuration in cabling for the XN5004T by following images:

### a. One LAN connection



**b. Multiple LAN connections**



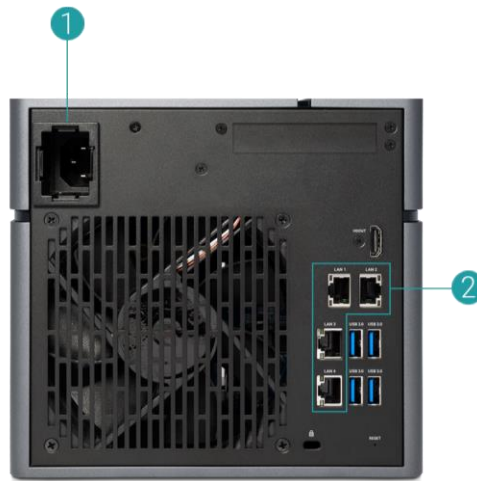
**c. Direct attachment**



## 3.5. Start Up Your System

Before you power on your XCubeNAS for the first time, please make sure the following tasks are done:

1. Connect one end of each power cord to the power ports located on the back of the XCubeNAS and the other end to a power outlet.
2. Connect at least one LAN cable to one of the LAN ports and the other end to your switch, router, or hub.



3. Press the power button to turn on your XCubeNAS.



Your XCubeNAS is now online and detectable from a network computer.



**INFORMATION:**

The power cord rating is the minimum requirement. The rating of the power cord that you purchase must equal to or be higher than the minimum requirement to ensure the system safety and reliability.

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**INFORMATION:**

The Following are the operational conditions for XN5004T:

Temperature:

- Operating temperature 0 to 40°C
- Shipping temperature -10°C to 50°C

Relative Humidity:

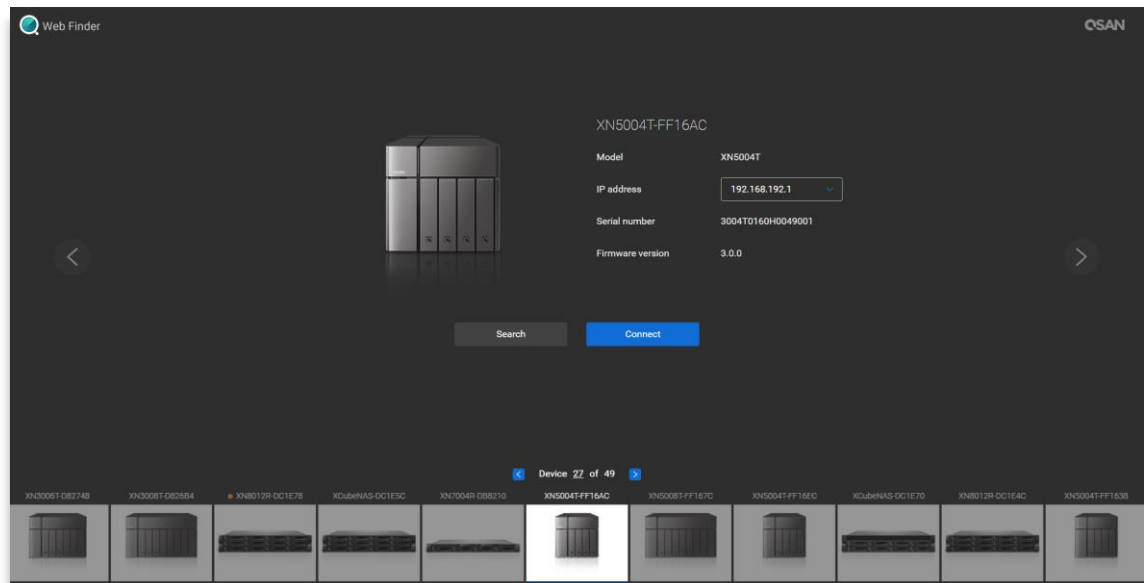
- Operating Relative Humidity 20% to 80% non-condensing
  - Non-Operating Relative Humidity 10% to 90%
-



## 4. Discover and Install QSM

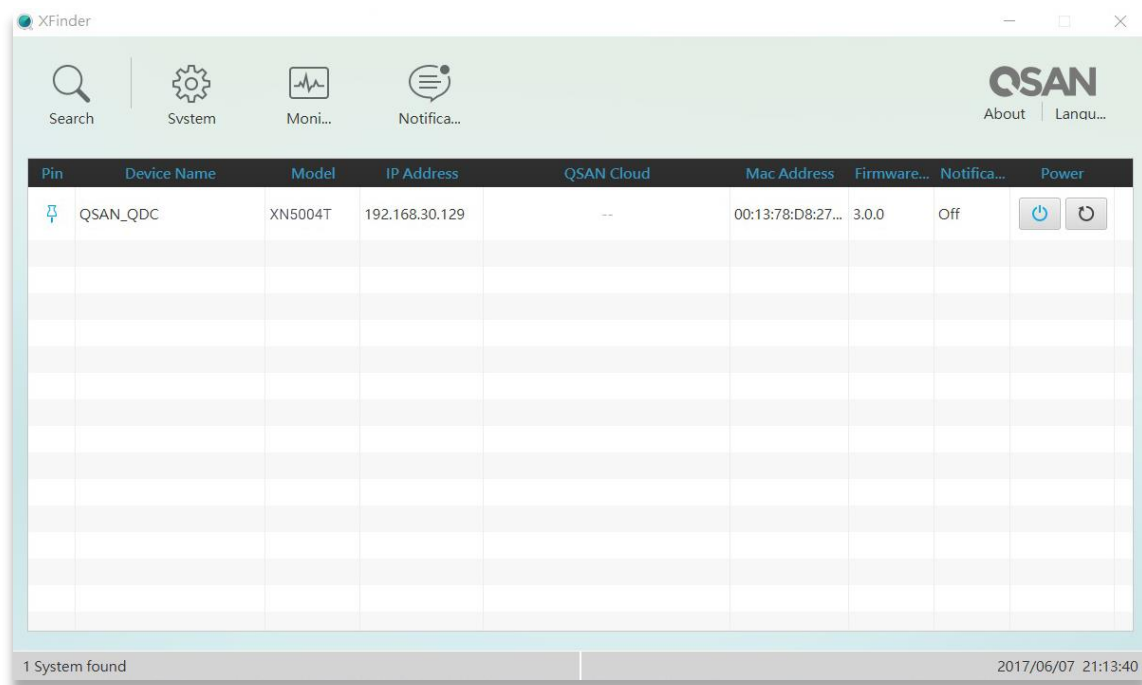
After hardware setup is finished, the next step is to discover the system on the network and start the initial configuration. To discover and install the QSAN Storage Manager (QSM), please follow the steps below:

1. Power on the XCubeNAS.
2. Open a web browser on your computer connected to the same local area network as XCubeNAS, and use either of the following methods on the browser:
  - a. Use Web Finder: [find.qsan.com](http://find.qsan.com) (Please make sure the XCubeNAS has internet access ability before using the Web Finder.)

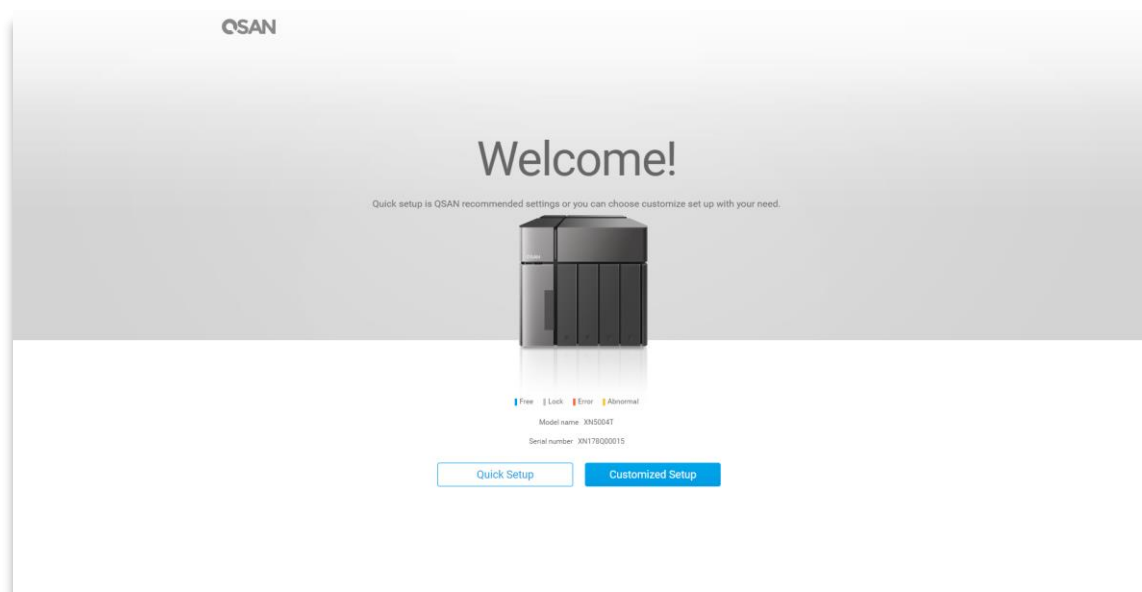


- b. If your XCubeNAS cannot be connected to the internet, please try downloading and installing XFinder application from the QSAN website to your PC: <http://www.qsan.com/zh-tw/download.php>



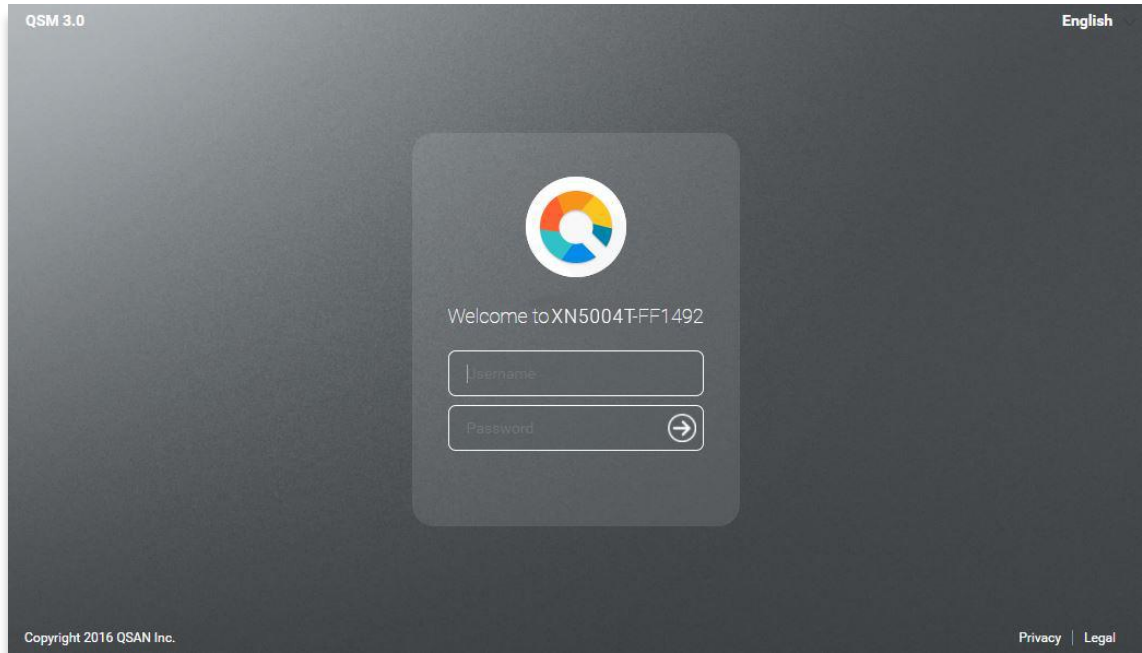


3. Click **"Connect"** on the web Finder or double click on your XCubeNAS on the XFinder, the welcome page will be launched on your web browser.



4. Click **Quick Setup** or **Custom Setup** to start the setup process and follow the onscreen instructions.

5. If you accidentally leave the quick install page, you can always return to the setup page by go through the steps above from step 1 again.
6. After quick setup is finished, login to the QSM as “**admin**” (default account name) with the password you set on former instructions.



### INFORMATION:

1. The XCubeNAS must be connected to the Internet to install QSM with Web Finder.
2. Both the XCubeNAS and your PC must be on the same local network.
3. If you cannot find your XCubeNAS, the default IP address for LAN 1 is 169.254.1.234.
4. If you expanded your memory earlier on, you can now check to make sure the system recognizes the new memory capacity. You can check the status by following steps:
  - a. Login to QSM as **admin** or a user belongs to the **administrator's** group.
  - b. Find the memory status in **Monitor app** → **Hardware**.

If your system cannot recognize the expanded memory or failed to start up, please check again and ensure the memory is properly installed.

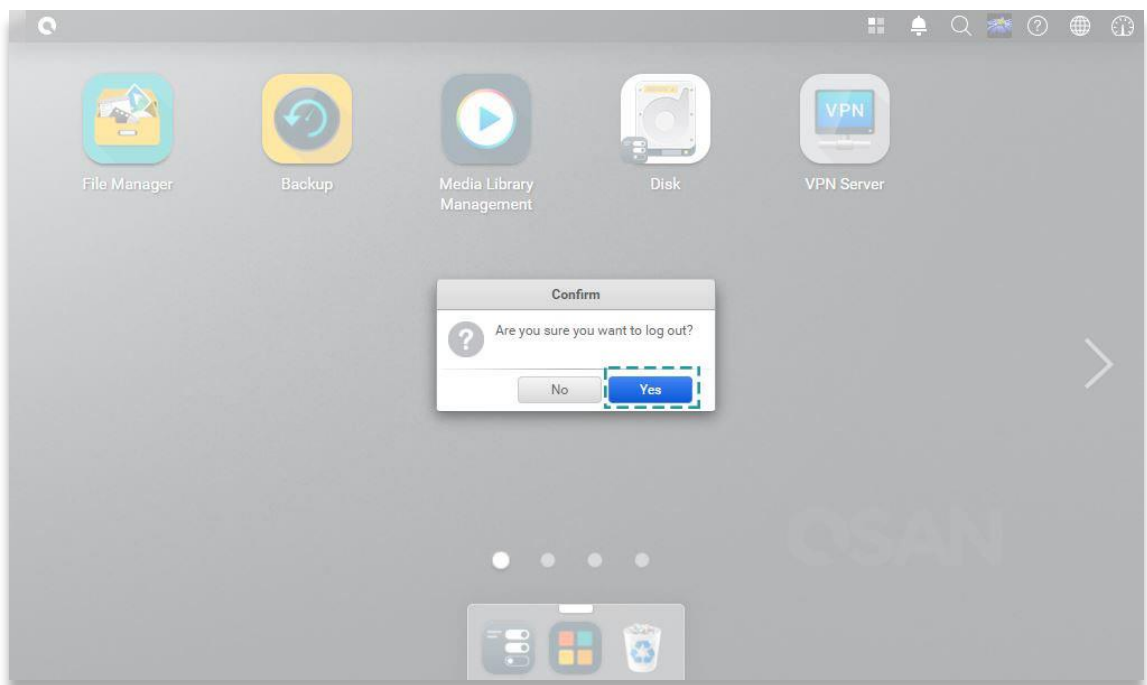
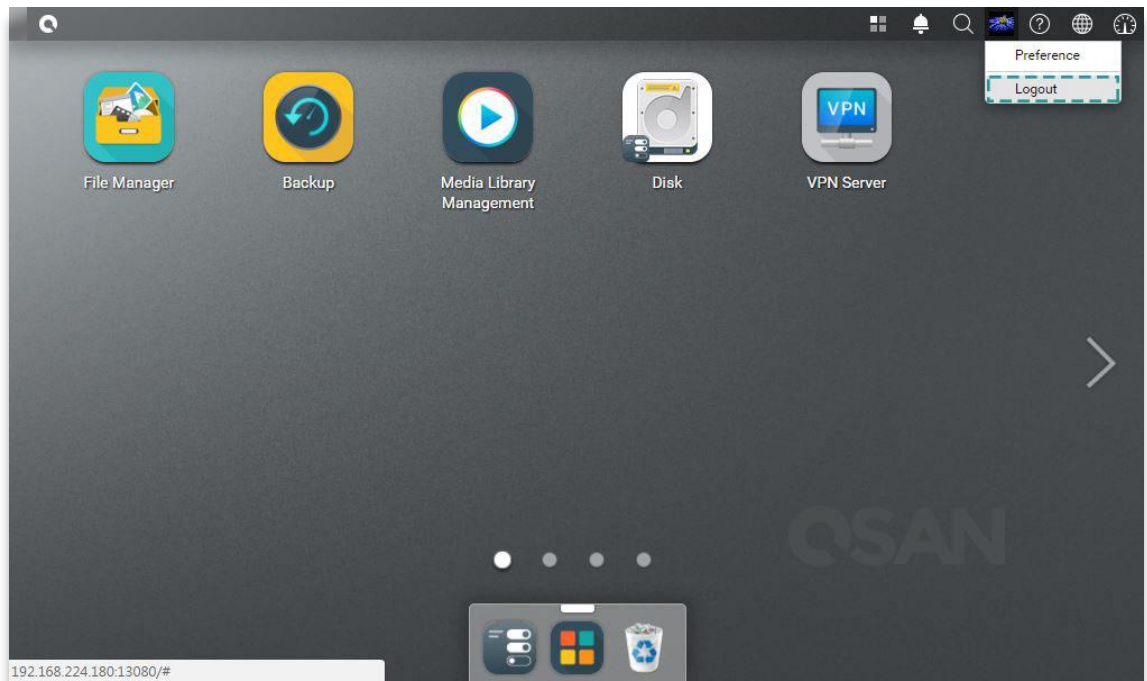
## 5. Restart/Shutdown/Logout QSM

If you want to restart, shutdown or log out QSM, please follow the steps below:

1. To restart or shutdown QSM, please click on the QSAN logo on the top left corner, then choose the option which you would like to proceed. Click **Yes** button on the confirm window.



- To log out QSM, please click **User Profile** on the top right corner, then choose **Logout**. Click **Yes** button on the confirm window.



## 6. Reset to Default

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If you want to reset XCubeNAS to factory default, there are several options to choose from. Please follow the steps below:

Reset to default by using the reset button on the back of XCubeNAS:



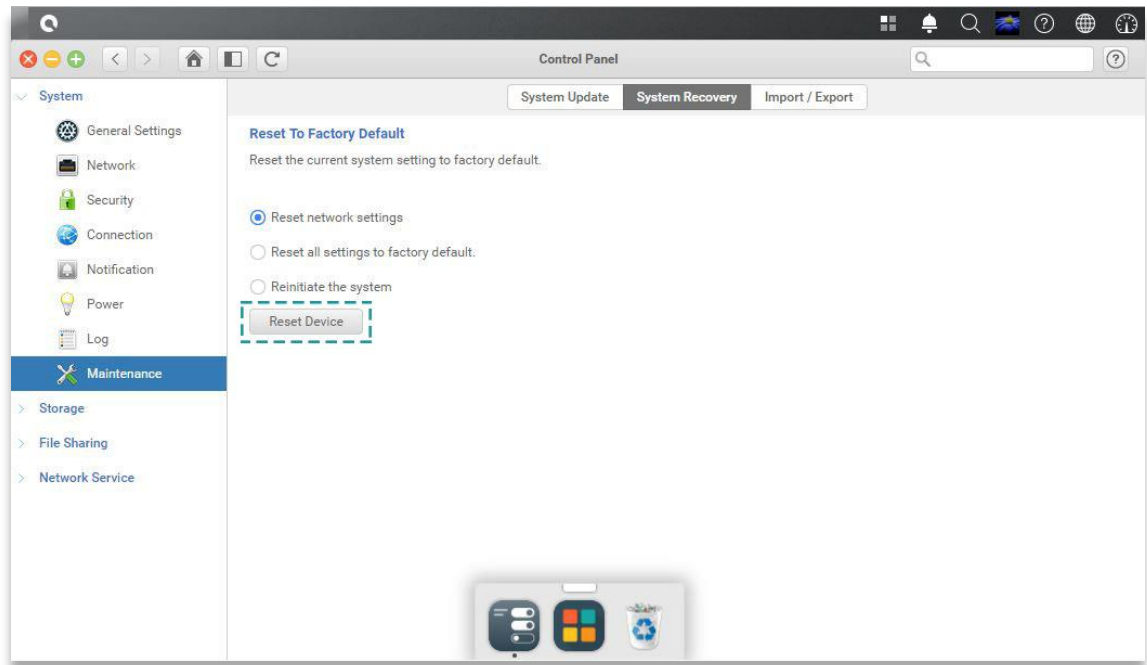
1. Reset network settings: Press and hold the reset button on the rear panel for **3 seconds**, a short beep sound for 1 second will be heard. The administrator password and all the network settings will be reset, the system configuration will result in:
  - Reset Admin password to the default value: 1234.
  - All networking set to "DHCP".
  - All data service ports set to default setting (All data service enable and set to default port).
  - VLAN will be terminated.
  - Vswitch will be deleted.
  - Port trunking will be disabling.
  - After configs are deleted, restart the XCubeNAS.
  - Log out QSAN Cloud.
  - DNS settings.
  - DDNS and UPNP settings.

2. Reset all settings: Press and hold the reset button on the rear panel for **10 seconds**, you will hear a short beep sound at the third second and a long beep sound at the tenth second. The operating system (including reset the administrator password and all the network settings) will be reinstalled, the system configuration will result in:
  - Reset all network settings to factory default.
  - Reset all system settings to factory default.
  - All accounts, groups, folder permission, and ACL are deleted.
  - Access control lists are all deleted.
  - All backup tasks are deleted.
  - Cloud sync job delete.
  - VPN settings are deleted.
  - Web server setting are set to default.
  - AntiVirus setting are deleted.
  - SQL settings are set to default.
  - Media Library index will be deleted.
  - After configs are deleted, restart the XCubeNAS.
  - Log out QSAN Cloud.

Reset to default through QSM:

You can also reset network setting or all the setting through QSM.

1. Please click **Control Panel → System → Maintenance → System Recovery**. Choose the option which you would like to proceed.
  - a. Reset network settings: The administrator password and all the network settings will be reset.
  - b. Reset all settings to factory default: The operating system (including reset the administrator password and all the network settings) will be reinstalled.
  - c. Reinitiate the system: All settings will return to factory default. The system config and all data will be deleted. The system will restart automatically and return to quick install page.



2. Click the Reset Device button to proceed.

## 7. LED Indicator Table

XN5004T features the button and indication module on both the front panel and the rear panel. Please refer to the following content for definitions of LED behaviors.

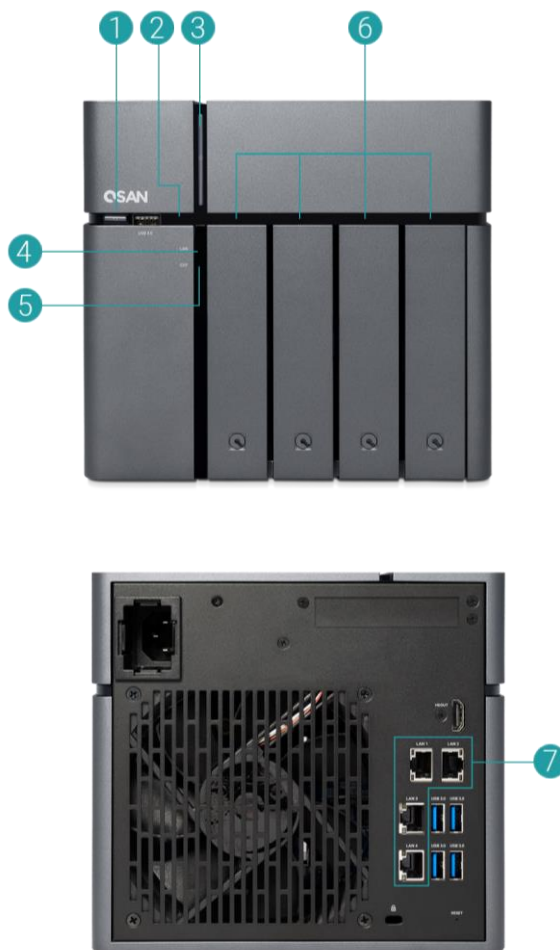


Table 7-1 Descriptions of the System Controls and Indicators LEDs

Number	Description	Definition
1	USB One Touch Copy Button/ USB Status LED	<p><b>USB Copy Button</b></p> <ul style="list-style-type: none"> <li>Press the button one time to start the action defined through UI (Note: USB one touch copy function needs to be enabled through UI first)</li> </ul> <p><b>USB Status LED</b></p> <ul style="list-style-type: none"> <li><b>Blue:</b> A front USB device is detected (after the device is mounted).</li> </ul>



		<ul style="list-style-type: none"> <li>Blue flashes every 0.5 sec: 1) The USB device (connected to the front USB port) is being accessed. 2) The data is being copied to or from the external USB or eSATA device.</li> <li>OFF: No USB device is mounted.</li> </ul>
2	Solid State Drive (SSD) LED	<ul style="list-style-type: none"> <li>Blue: The hard disk is attached.</li> <li>Blue flashes: The disk data is being accessed.</li> <li>Amber: A hard drive read/write error occurs.</li> <li>Blue and Amber flashes alternatively: The hard disk is being rebuilt or identify a specific disk drive.</li> <li>OFF: No disk drive is inserted.</li> </ul>
3	Power Button/LED	<p><b>Power Button</b></p> <ul style="list-style-type: none"> <li>Press the button one time to turn ON or OFF the system power.</li> <li>Keep pressing for 4 seconds to force turn OFF the system power.</li> </ul> <p><b>Power LED</b></p> <ul style="list-style-type: none"> <li>White: power is ON.</li> <li>White flashes every 0.5 sec: the system is at the stage of starting up or shutting down, or the NAS is not configured.</li> <li>Amber: 1) The system pool has reached its full capacity (100%). 2) The system pool is going to be full (95%). 3) The system fan is out of function. 4) A bad sector is detected on the hard disk drive or hard disk failed. 5) One of the pool is in degraded read-only mode. 6) Hardware self-test error. e.g. abnormal voltage, the temperature is at critical high/low, any cooling fan module failed, any pool failed.</li> <li>White and Amber flash every 0.5 sec alternatively: 1) The system firmware is being updated. 2) RAID rebuilding is in a process. 3) Software control LED indicator.</li> <li>Off: the system shutdown.</li> </ul>
4	LAN Status LED	<ul style="list-style-type: none"> <li>Blue: The NAS is connected to the network.</li> <li>Blue flashes: The disk data is being accessed from the network.</li> </ul>

5	Expansion Unit Status LED	<ul style="list-style-type: none"> <li>Blue: An expansion card is being accessed.</li> <li>OFF: No expansion card is being accessed.</li> </ul>
6	Disk Drive Status LED	<ul style="list-style-type: none"> <li>Blue: The hard disk is attached.</li> <li>Blue flashes: The disk data is being accessed.</li> <li>Amber: A hard drive read/write error occurs.</li> <li>Blue and Amber flashes alternatively: The hard disk is being rebuilt or identify a specific disk drive.</li> <li>OFF: No disk drive is inserted.</li> </ul>
7	LAN Port	<p><b>Activity/Link:</b></p> <ul style="list-style-type: none"> <li>Light OFF: No connection.</li> <li>Light ON: Connected to the internet</li> <li>Light flashes: when data is being accessed.</li> </ul> <p><b>Speed:</b></p> <ul style="list-style-type: none"> <li>Light OFF: Speed less than 10Mbps</li> <li>Light ON: Connected to the internet</li> </ul>

## 8. Buzzer Indicator Table

Number	Beep Sound	No. of Times	Description
1	Short beep (0.5 sec)	1	<ul style="list-style-type: none"> <li>The XCubeNAS is ready (finish start up).</li> <li>The XCubeNAS is being shut down (software shutdown).</li> <li>The system firmware has been updated.</li> <li>Front USB start copy</li> <li>Front USB finish copy</li> <li>USB drive is removed</li> <li>The user starts hard drive rebuilding.</li> </ul>
2	Short beep (0.5 sec)	3 times, interval of 0.5 sec	<ul style="list-style-type: none"> <li>The NAS data cannot be copied to the external storage device from the front USB port.</li> </ul>
3	Long beep (1.5 sec)	Beep until event finishes, interval of 0.5 sec	<ul style="list-style-type: none"> <li>1) The system pool has reached its full capacity (100%). 2) The system pool is going to be full (95%). 3) The system fan is out of function. 4) A bad sector is detected on the hard disk drive or hard disk failed. 5) One of the pool is in degraded mode. 6) Hardware self-test error. e.g. PSU failed, abnormal voltage, the temperature is at critical high/low, any cooling fan module failed or removed, any pool failed. 7) Remove hard disk or solid state drive.</li> </ul>

**Note:** If one event has triggered the beep sound, the next event will not trigger the beep sound until the previous event has finished.

**Note 2:** The beep sound will not be triggered if buzzer function is disabled from the QSM. You can check the error messages through the **Notification Center** on QSM.

## 9. Support and Other Resources

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### 9.1. Getting Technical Support

After installing your device, locate the serial number on the sticker located on the side of the chassis and register your product at [partner.qsan.com/](http://partner.qsan.com/) (End-User Registration). We recommend registering your product in QSAN partner website for firmware updates, document download, and latest news in eDM. To contact QSAN Support, please use the following information.

1. Via the Web: [http://www.qsan.com/en/contact\\_support.php](http://www.qsan.com/en/contact_support.php)
2. Via Telephone: +886-2-7720-2118 extension 136  
(Service hours: 09:30 - 18:00, Monday - Friday, UTC+8)
3. Via Skype Chat, Skype ID: qsan.support  
(Service hours: 09:30 - 02:00, Monday - Friday, UTC+8, Summertime: 09:30 - 01:00)
4. Via Email: [support@qsan.com](mailto:support@qsan.com)

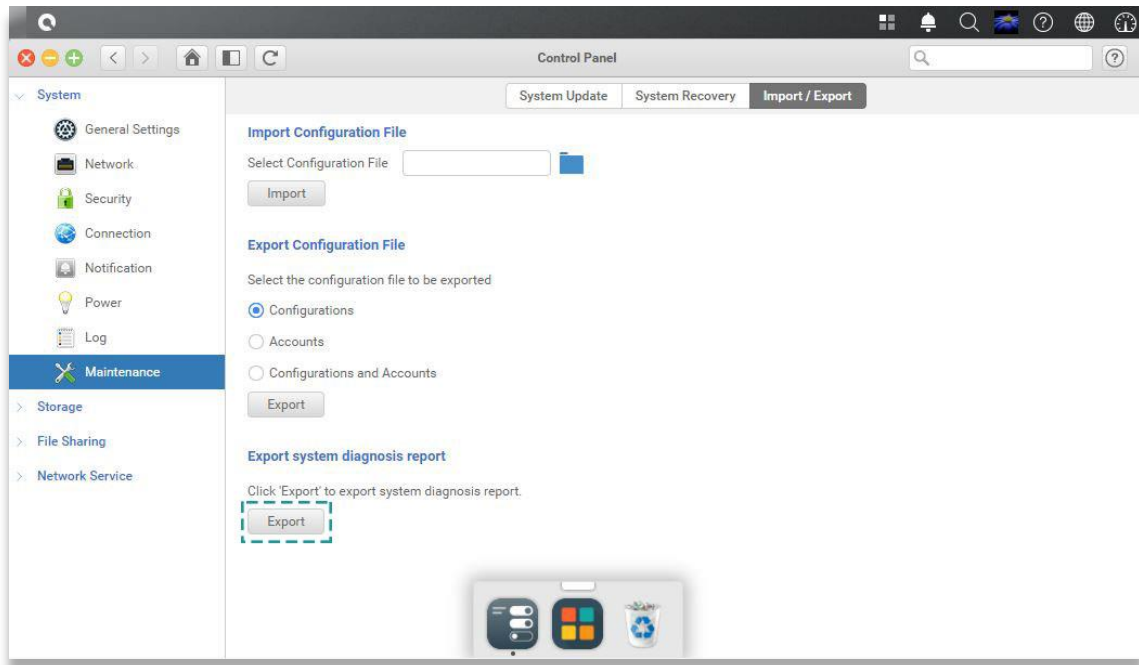
#### Collect Information for Analysis

1. Product name, model or version, and serial number
2. Firmware version
3. Error messages or screenshot images
4. Product-specific reports and logs
5. Add-on products or components installed
6. Third-party products or components installed

#### Information for Technical Support

The following system information is necessary for technical support, please refer to following for what and where to get the information of your XN5004T model.

If the technical support requests you to download the service log, please navigate to the QSM UI → **Control Panel** → **System** → **Maintenance** → **Import/Export** → **Export system diagnosis report**, and then click the **Export** button.



## 9.2. Documentation Feedback

QSAN is committed to providing documentation that meets and exceeds your expectations. To help us improve the documentation, email any errors, suggestions, or comments to [docsfeedback@qsan.com](mailto:docsfeedback@qsan.com).

When submitting your feedback, including the document title, part number, revision, and publication date located on the front cover of the document.

## Appendix

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