



QNAP

TS-435XeU

用户指南

内容

1. 前言	
关于本指南.....	3
受众.....	3
文档约定.....	3
2. 产品概述	
关于 TS-435XeU.....	4
硬件规格.....	4
包装内容.....	6
组件.....	6
前面板.....	6
后面板.....	7
系统主板.....	8
硬盘编号.....	8
安全信息.....	8
安装要求.....	9
设置 NAS.....	10
3. 安装和配置	
硬件安装.....	11
硬盘安装.....	11
更换内存模块.....	19
安装扩展单元.....	23
安装手柄.....	25
QTS 安装.....	26
使用 Qfinder Pro 安装 QTS.....	26
使用 Cloud Key 安装 QTS.....	28
4. 基本操作	
电源按钮.....	30
重置按钮.....	30
LED.....	30
警告音.....	32
5. NAS 迁移	
NAS 迁移要求.....	33
NAS 迁移后的状态和设置变化.....	33
迁移 NAS.....	34
使用 HBS 3 迁移 NAS 数据.....	34
准备目标 NAS.....	35
创建单向同步作业.....	35
将本地用户或组设置导入目标 NAS.....	37
6. 故障排除	
强制 Qfinder Pro 或 myQNAPcloud 定位 NAS.....	38
热插拔故障硬盘.....	38
恢复被意外移除的正常硬盘.....	39
支持和其他资源.....	39
7. 术语表	

Cloud Key.....	40
myQNAPcloud.....	40
myQNAPcloud Link.....	40
QNAP ID.....	40
Qfinder Pro.....	40
QTS.....	40

8. 声明

有限保修.....	41
免责声明.....	41
GNU Public License.....	41
CE 声明.....	49
FCC 声明.....	49
VCCI 公告.....	49
BSMI 公告.....	50
SJ/T 11364-2006.....	50

1. 前言





关于本指南

本指南提供有关设备的信息以及有关硬件安装的分步说明。此外，还提供了有关基本操作和故障排除信息的说明。

受众

本文档的目标读者为用户和存储管理员。本指南假定用户已对存储和备份概念有基本了解。

文档约定

符号	描述
	注释，提供默认配置设置和其他补充信息。
	重要注释，提供有关所需配置设置的信息以及其他关键信息。
	提示，提供有关执行任务或配置设置的建议或备选方法。
	警告，提供警告信息，如果忽略此信息，可能会导致潜在损失、伤害甚至死亡。

2. 产品概述

本章提供有关 QNAPTS-435XeU NAS 的基本信息。

关于 TS-435XeU

TS-435XeU 由 Marvell OCTEON TX2™ CN9131 ARMv8 Cortex-A72 四核 2.2GHz 处理器和 DDR4 RAM 提供支持。此型 NAS 提供两个 M.2 Gen 3 插槽并提供了四个可热插拔 SATA 6 Gbps 硬盘架，可支持机械硬盘和固态硬盘。TS-435XeU 为企业提供了现代 NAS 解决方案，用于处理文件备份和恢复等日常任务，提高团队协作效率。

硬件规格



警告

如果您的 QNAP 产品有硬件方面的缺陷，请将产品退回 QNAP 或 QNAP 授权的服务中心进行维修或更换。您本人或未经授权的第三方对产品进行的任何维修或维护流程均会使保修失效。

对于因未经授权进行的修改和安装不受支持的第三方应用程序而造成的任何损坏或数据丢失，QNAP 概不负责。

有关详细信息，请参见 [QNAP 产品保修服务条款](#)。





提示

型号规格如有更改，恕不另行通知。要查看最新规格，请转到 <https://www.qnap.com>。

订购部件号	硬盘架	内存	电源
TS-435XeU-2G	4	2 GB	单一

组件	TS-435XeU-2G
处理器	
CPU	Marvell OCTEON TX2™ CN9131 ARMv8 Cortex-A72
频率	4 核/2.2 GHz 基本/3.0 GHz 脉冲
架构	ARM 64 位
加密引擎	AES-NI
内存	
预安装内存	2 GB RAM: 1 x 2 GB DDR4 SODIMM
内存插槽	1 x DDR4 SODIMM
	注 请仅使用 QNAP 内存模块，以保证系统性能和稳定性。 使用不受支持的模块可能导致性能下降、引发错误或使操作系统无法启动。
最大内存	16 GB RAM: 1 x 16 GB
闪存	4 GB (双重引导操作系统保护)
存储	
硬盘架	4 x 3.5 英寸 SATA 6 Gbps
	提示 硬盘架向后兼容 SATA 3 Gbps 硬盘。

组件	TS-435XeU-2G
硬盘兼容性	3.5 英寸硬盘架： <ul style="list-style-type: none"> • 3.5 英寸 SATA 机械硬盘 • 2.5 英寸 SATA 机械硬盘 • 2.5 英寸 SATA 固态硬盘
M.2 SSD 插槽	2 x NVMe PCIe Gen 3 x1
M.2 SSD 外形规格	2280
SSD 缓存加速支持	3.5 英寸硬盘架：1 至 4
热插拔	本设备对除 M.2 SSD 外的硬盘支持热插拔。
网络	
10 Gb 以太网端口	2 x 10 GbE SFP+
2.5 Gb 以太网端口	2 x 2.5 GbE RJ45
外部 I/O 端口和扩展插槽	
USB 端口	2 x USB 2.0 A 型 2 x USB 3.2 Gen 1 A 型
界面	
按钮	<ul style="list-style-type: none"> • 电源 • 重置
尺寸	
外形规格	1U 机架式
尺寸（高 x 宽 x 深）	43.3 x 230 x 292.1 mm （1.7 x 9.1 x 11.5 英寸）
净重	4.17 kg（9.19 磅）
其他	
导轨兼容性	RAIL-B02 <div style="margin-top: 10px;">  注 <ul style="list-style-type: none"> • 导轨套件未随 NAS 提供，必须单独购买。有关详细信息，请联系授权经销商或转到 http://shop.qnap.com。 • 有关导轨套件安装的信息，可在导轨套件包装随附的安装指南中找到。 </div>
电源单元	100W，100-240V AC，50/60 Hz
系统电池	CR2032 锂电池（3V，225 mAh）
噪声声级	20.2 dB(A) <div style="margin-top: 10px;">  注 <p>噪声声级在距 NAS 一米以内的旁观者位置测得。测试 NAS 安装了最大数量的硬盘以低速运行。</p> </div>
风扇	系统：3 x 40 mm 12V DC 风扇

组件	TS-435XeU-2G
工作温度	0°C 至 40°C (32 至 104°F)
相对湿度	<ul style="list-style-type: none"> 无冷凝相对湿度: 5% 至 95% 湿球温度: 27°C (80.6°F)
安全锁孔	Kensington 安全锁孔



提示

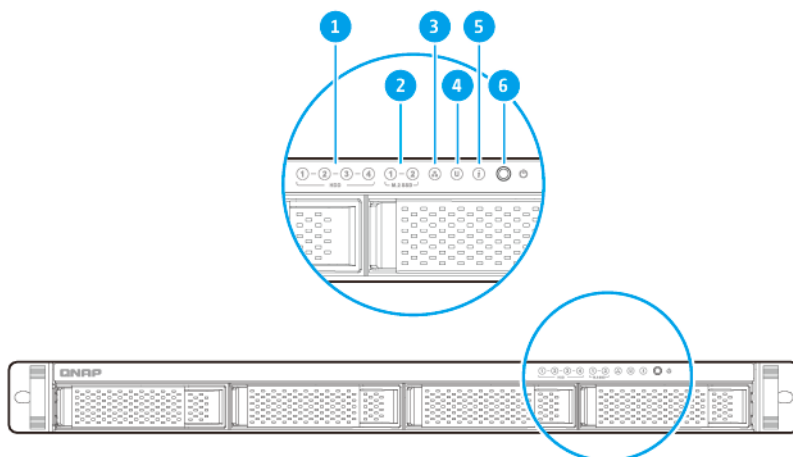
有关兼容的硬盘型号和扩展卡的列表，请转到 <https://www.qnap.com/compatibility>。

包装内容

项目	数量
TS-435XeU NAS	1
电源线	1
以太网线	1 x Cat5e (RJ45)
适用于 3.5 英寸硬盘的螺丝	16
适用于 2.5 英寸硬盘的螺丝	12
M.2 SSD 散热片	2
手柄套件	<ul style="list-style-type: none"> • 2 x 手柄 • 2 x 角码 • 8 x 螺丝
快速安装指南 (QIG)	1

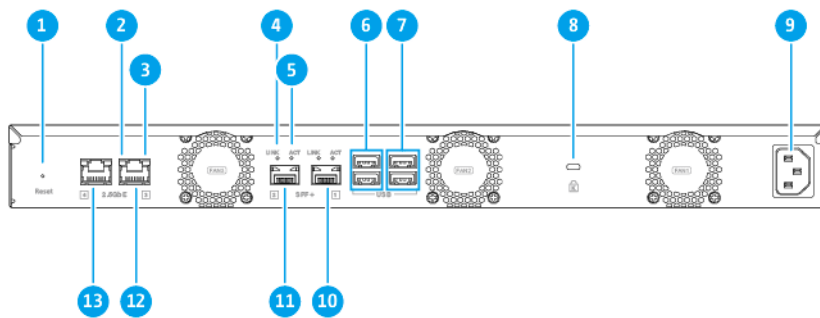
组件

前面板



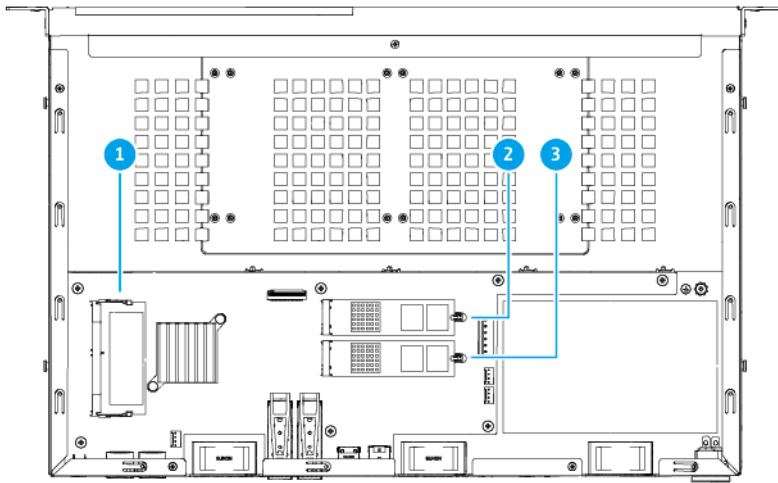
编号	组件	编号	组件
1	硬盘 LED	4	扩展单元 LED
2	M.2 SSD LED	5	状态 LED
3	LAN LED	6	电源按钮

后面板



编号	组件	编号	组件
1	重置按钮	8	Kensington 安全锁孔
2	2.5 Gb 以太网速度 LED	9	电源输入
3	2.5 Gb 以太网活动 LED	10	以太网端口 1 (10GbE SFP+)
4	10 Gb 以太网链路 LED	11	以太网端口 2 (10GbE SFP+)
5	10 Gb 以太网活动 LED	12	以太网端口 3 (2.5GbE RJ45)
6	USB 3.2 Gen 1 A 型端口	13	以太网端口 4 (2.5GbE RJ45)
7	USB 2.0 A 型端口	-	-

系统主板



编号	组件	编号	组件
1	内存插槽	3	M.2 NVMe SSD 插槽 2
2	M.2 NVMe SSD 插槽 1	-	-

硬盘编号



安全信息

以下说明有助于确保个人安全和环境安全。在执行任何操作之前，请仔细阅读这些说明。

一般说明

- 设备应存放在通过器具、锁和钥匙或任何安保措施限制进入的安全场所。
- 只有经过授权并掌握技能的合格人员才能实际接触设备，相关人员需了解所有限制措施、安全预防措施和安装维护流程。
- 为避免潜在伤害或组件的损坏，请务必等硬盘和其他内部系统组件冷却后再触碰。
- 请执行静电放电 (ESD) 规程，以避免可能的人员受伤或组件受损。

电源

- 为降低失火或触电风险，请确保只将电源线连接到接地良好的电源插座。



配备冗余电源的设备可能有一条或多条电源单元 (PSU) 线。为避免受到严重伤害，安装或更换系统组件前，必须由经培训的维修技师从设备拔下所有 PSU 线。

系统电池

- 为避免潜在的电池爆炸、导致人员受伤或组件受损，请确保使用同型电池更换现有电池。
- 请按当地法规或电池制造商的指示正确处置使用过的电池。

运动的部件



转动的风扇叶片： 在设备连接到电源时，使您的身体各部位远离正在转动的风扇叶片。



运动的组件： 使您的身体各部位远离正在运动的其他组件。

安装要求

类别	项目
环境	<ul style="list-style-type: none"> • 室温：0°C 至 40°C (32 至 104°F) • 无冷凝相对湿度：5% 至 95% • 湿球温度：27°C (80.6°F) • 平坦的防静电表面，无直射阳光、液体或化学药剂
硬件和外围设备	<ul style="list-style-type: none"> • 存储硬盘 有关兼容硬盘的详细信息，请转到 https://www.qnap.com/compatibility/。 • 网线

类别	项目
工具	<ul style="list-style-type: none"> • 1 号或 2 号十字螺丝刀 • 防静电腕带

设置 NAS



重要

在设置 NAS 或安装 NAS 组件之前，请仔细阅读所有安全要求和信息。

1. 将 NAS 设备置于符合要求的环境中。
有关详细信息，请参见[安装要求](#)。
2. 安装硬盘。
有关详细信息，请参见以下主题：
 - [在 3.5 英寸托盘上安装 3.5 英寸硬盘](#)
 - [在 3.5 英寸托盘上安装 2.5 英寸硬盘或固态硬盘](#)
 - [安装 M.2 固态硬盘](#)
3. 连接电源线和所有适用的线缆。
4. 启动 NAS 电源。
5. 安装 QTS。
有关详细信息，请参见[QTS 安装](#)。
6. 登录 QTS。

3. 安装和配置

本章提供了具体的硬件和固件安装与配置步骤。

硬件安装

本节提供有关安装硬盘、内存模块、扩展单元和手柄的信息。

硬盘安装

TS-435XeU 兼容 3.5 英寸和 2.5 英寸硬盘以及 2.5 英寸固态硬盘和 M.2 固态硬盘。

在 3.5 英寸托盘上安装 3.5 英寸硬盘



警告

- 安装硬盘将删除硬盘上的所有数据。
- 请执行静电放电 (ESD) 规程，以避免组件损坏。

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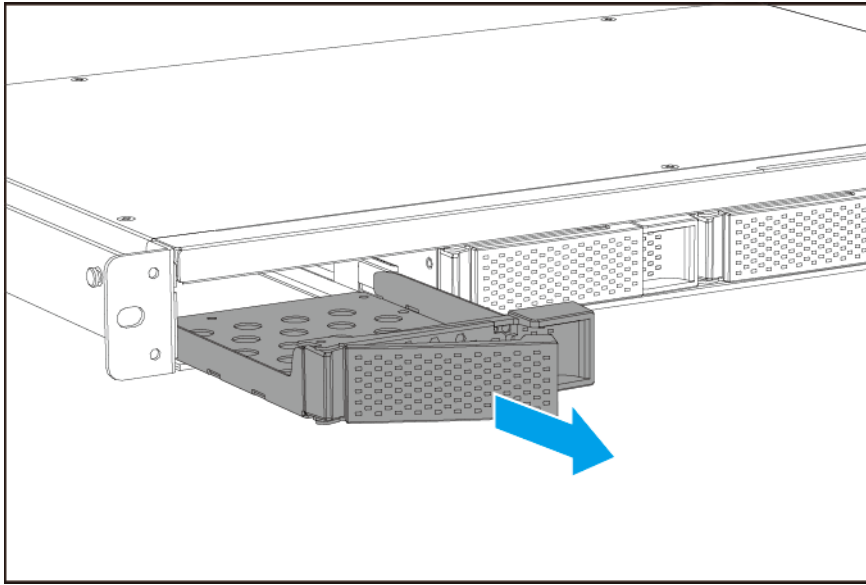
转动的风扇叶片：使您的双手和身体其他部位远离正在转动的风扇叶片。

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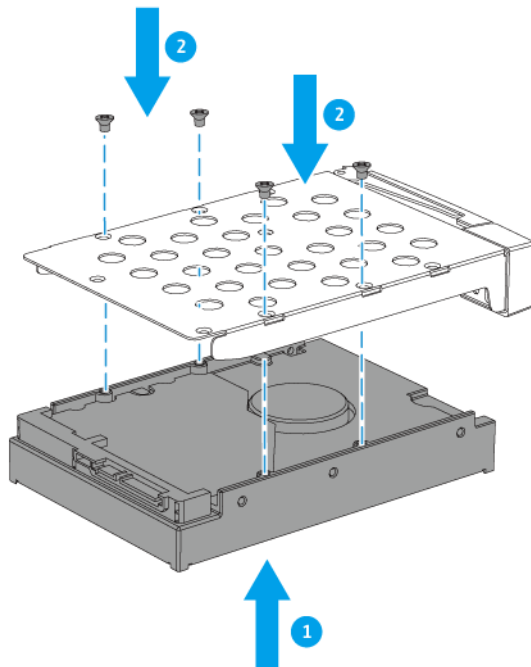


其他运动的组件：使您的双手和身体其他部位远离正在运动的其他组件。

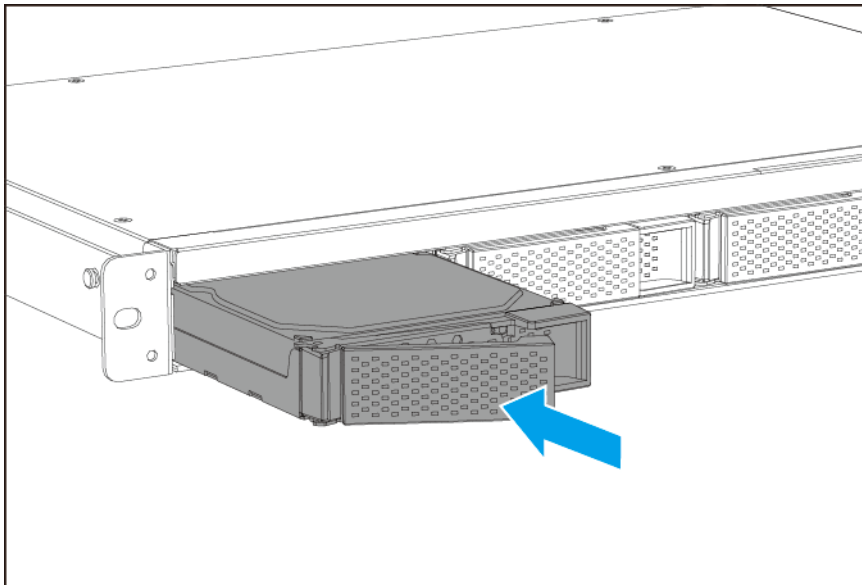
1. 关闭 NAS 电源。
2. 取下硬盘托盘。
 - a. 向外拉动托盘手柄。
 - b. 拉出托盘。



3. 将硬盘安装到托盘上。
 - a. 将托盘放在硬盘上，使托盘上的孔与硬盘上的孔对齐。
 - b. 安装螺丝。



4. 将托盘装入硬盘架。
 - a. 将托盘插入硬盘架。



b. 推动手柄。

5. 启动 NAS 电源。

在 3.5 英寸托盘上安装 2.5 英寸硬盘或固态硬盘



警告

- 安装硬盘将删除硬盘上的所有数据。
- 请执行静电放电 (ESD) 规程，以避免组件损坏。

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转动的风扇叶片：使您的双手和身体其他部位远离正在转动的风扇叶片。

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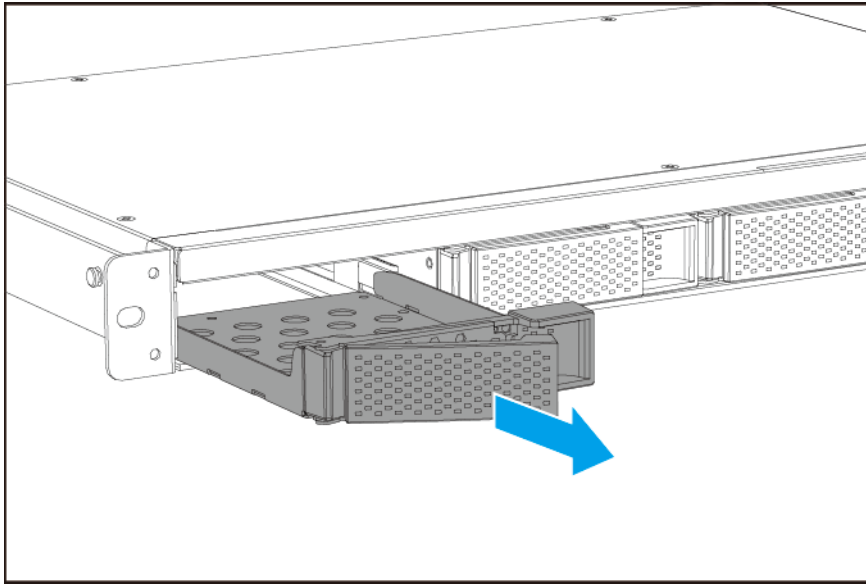
其他运动的组件：使您的双手和身体其他部位远离正在运动的其他组件。

1. 关闭 NAS 电源。

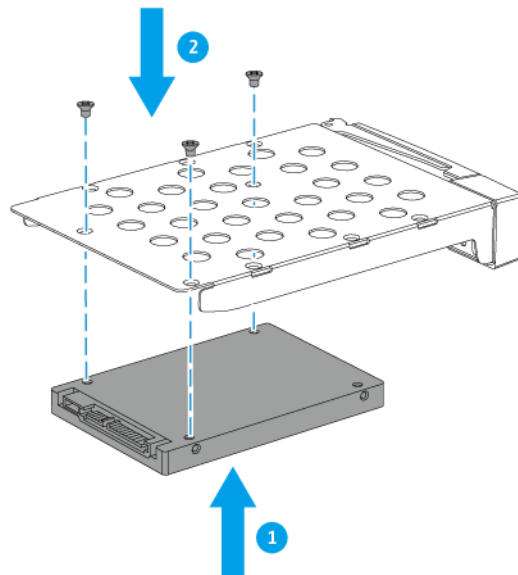
2. 取下硬盘托盘。

a. 向外拉动托盘手柄。

b. 拉出托盘。

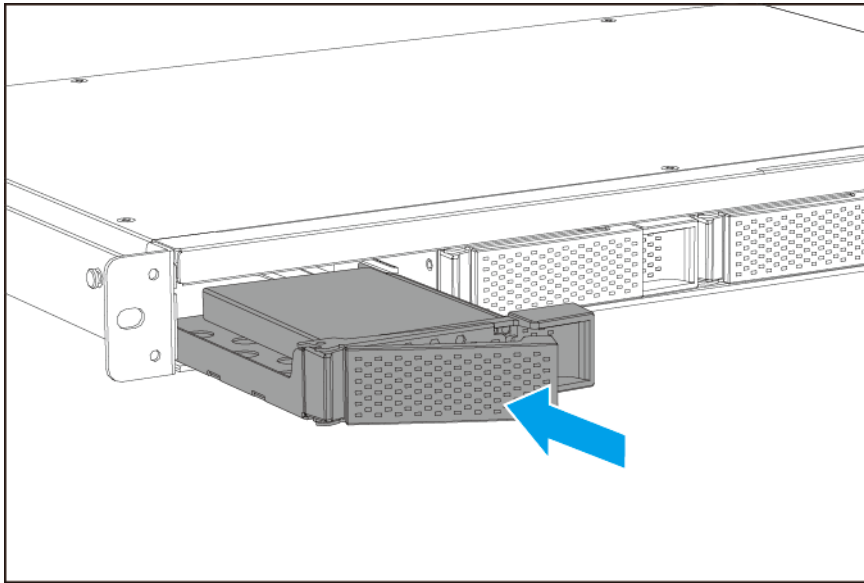


3. 将硬盘安装到托盘上。
 - a. 将托盘放在硬盘上，使托盘上的孔与硬盘上的孔对齐。
 - b. 安装螺丝。



4. 将托盘装入硬盘架。

- a. 将托盘插入硬盘架。



- b. 推动手柄。

5. 启动 NAS 电源。

安装 M.2 固态硬盘

TS-435XeU 的**系统主板**上有两个 M.2 NVMe PCIe SSD 插槽。有关兼容的 M.2 SSD 的列表，请转到 <http://www.qnap.com/compatibility>。



警告

- 安装硬盘将删除硬盘上的所有数据。
- 请执行静电放电 (ESD) 规程，以避免组件损坏。



转动的风扇叶片：使您的双手和身体其他部位远离正在转动的风扇叶片。



其他运动的组件：使您的双手和身体其他部位远离正在运动的其他组件。

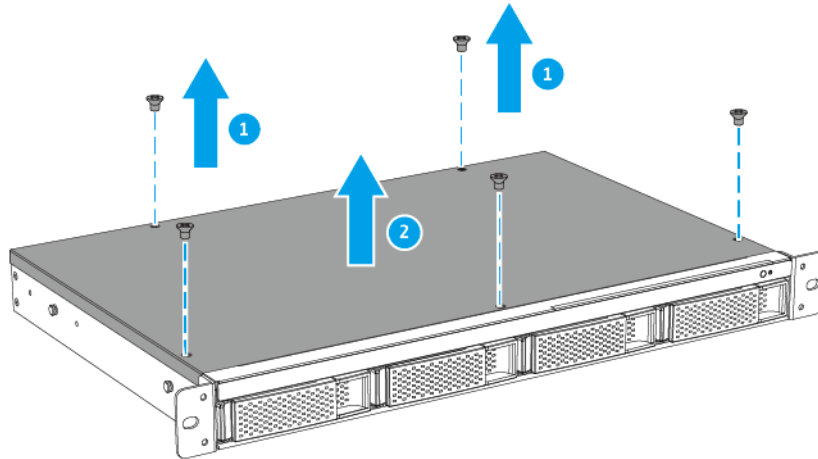


注

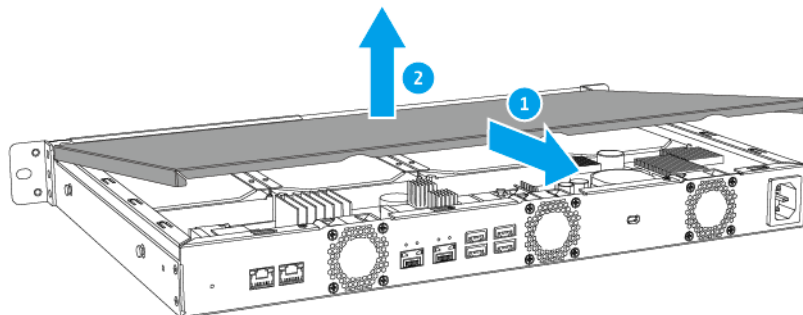
- QNAP 建议在 M.2 SSD 控制器上安装散热片，以提高散热效果并确保性能稳定。
- 安装非 QNAP 出品的散热片前，请确保该散热片的尺寸和外形合适。

1. 关闭设备。

2. 从插座上拔下电源线。
3. 拔掉所有线缆和外接部件。
4. 取下外壳盖。
 - a. 松开螺丝。



- b. 将盖板向后滑动。
 - c. 从设备上提起盖板。

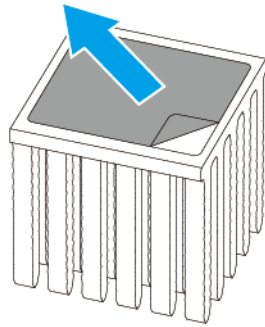


5. 在 M.2 SSD 上安装散热片。
 - a. 在 M.2 SSD 上找到控制器。

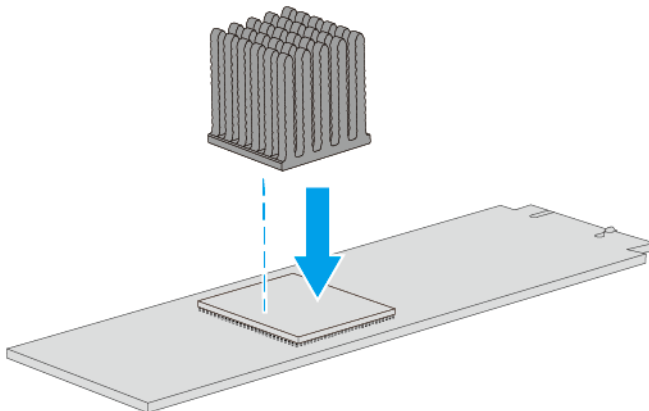
**注**

控制器位置因 M.2 SSD 的型号和制造商而异。
有关详细信息，请参阅文档或联系制造商。

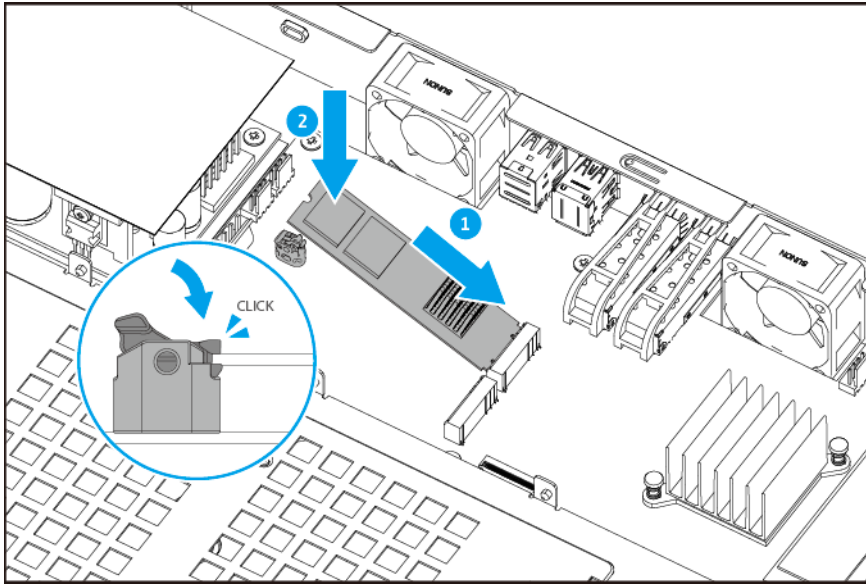
- b. 取下散热片的保护膜。



- c. 将散热片安装到控制器上。

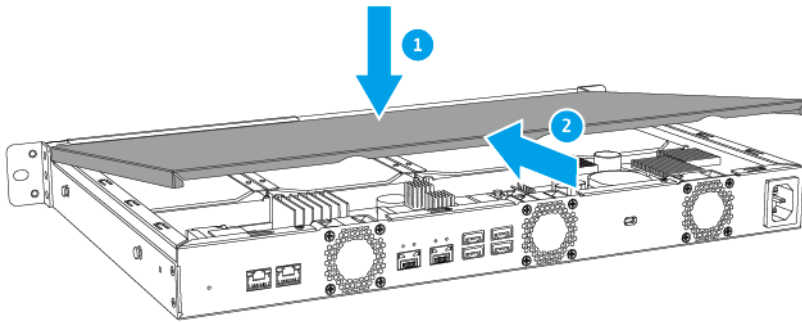
**6. 安装 M.2 SSD。**

- a. 检查 M.2 SSD 连接器是否与插槽对齐。
- b. 小心地向下按压 M.2 SSD，直到固定扣将硬盘锁定到位。

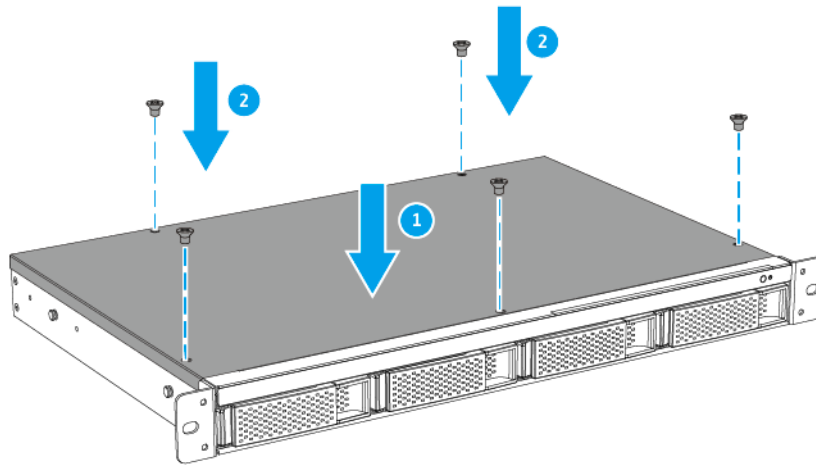


7. 安装外壳盖。

- a. 将盖板放在设备上。
- b. 将盖板向前滑动。



- c. 拧紧螺丝。



8. 连接所有线缆和外接部件。
9. 将电源线连接到插座。
10. 启动设备。

更换内存模块

TS-435XeU 有一个内存插槽。您可以通过升级内存模块来增加 NAS 的内存容量。

请仅使用 QNAP 内存模块，以保证系统性能和稳定性。可以从授权经销商处购买 QNAP 内存模块。

有关插槽编号的详细信息，请参见[系统主板](#)。



警告



转动风扇叶片：使您的双手和身体其他部位远离正在转动的风扇叶片。

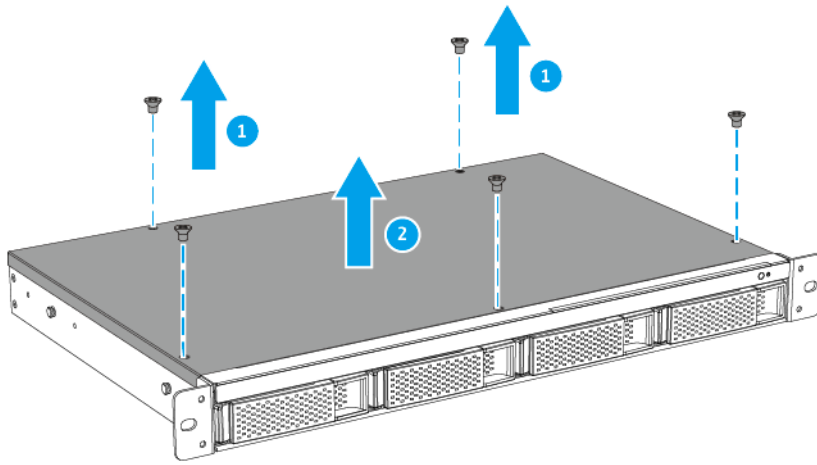


其他运动的组件：使您的双手和身体其他部位远离正在运动的其他组件。

- 请执行静电放电 (ESD) 规程，以避免组件损坏。

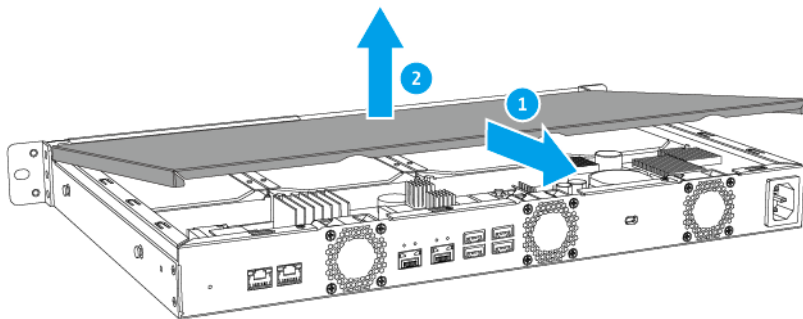
1. 关闭设备。
2. 从插座上拔下电源线。
3. 拔掉所有线缆和外接部件。
4. 取下外壳盖。

a. 松开螺丝。



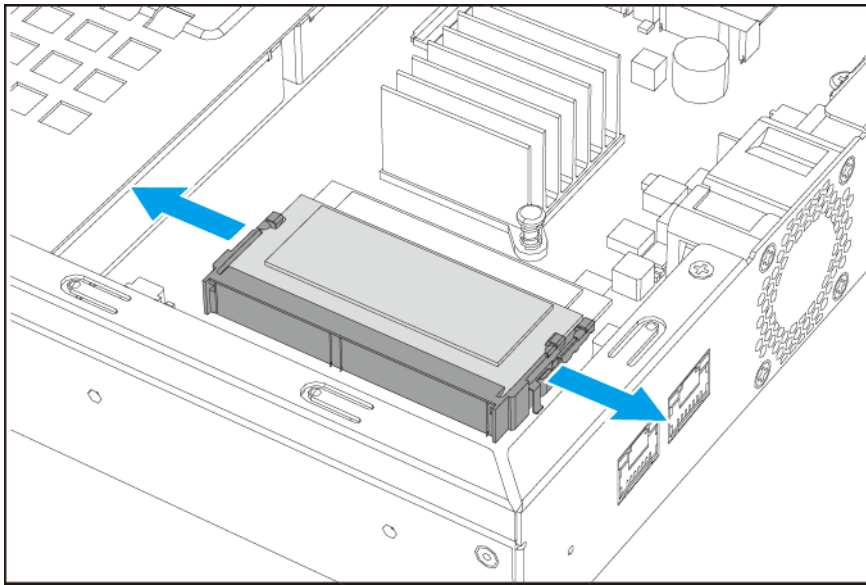
b. 将盖板向后滑动。

c. 从设备上提起盖板。



5. 取下现有模块。

a. 同时向外推动固定夹以释放模块。



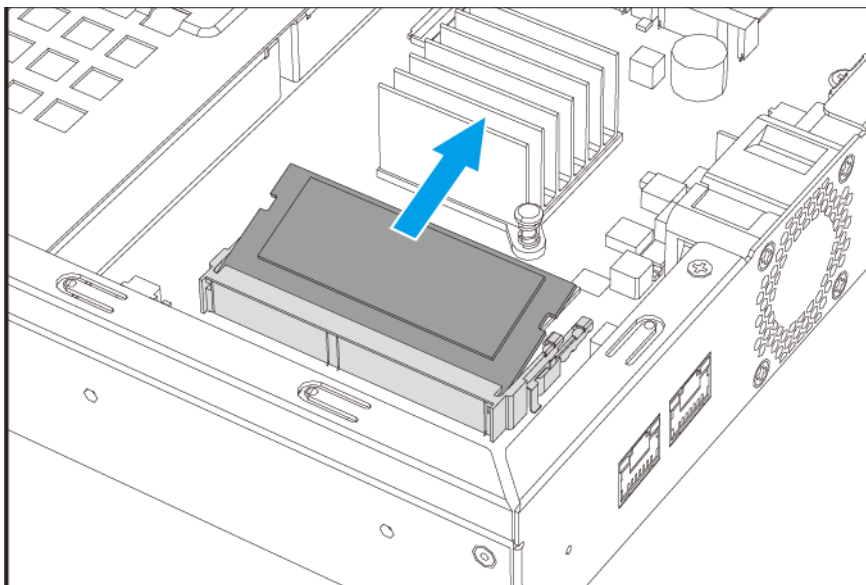
b. 确认模块向上倾斜并已完全脱离插槽。



警告

如果尝试在模块尚未完全脱离时将其取出，可能会损坏模块和主板。

c. 握住模块边缘。



d. 小心将模块滑出插槽。

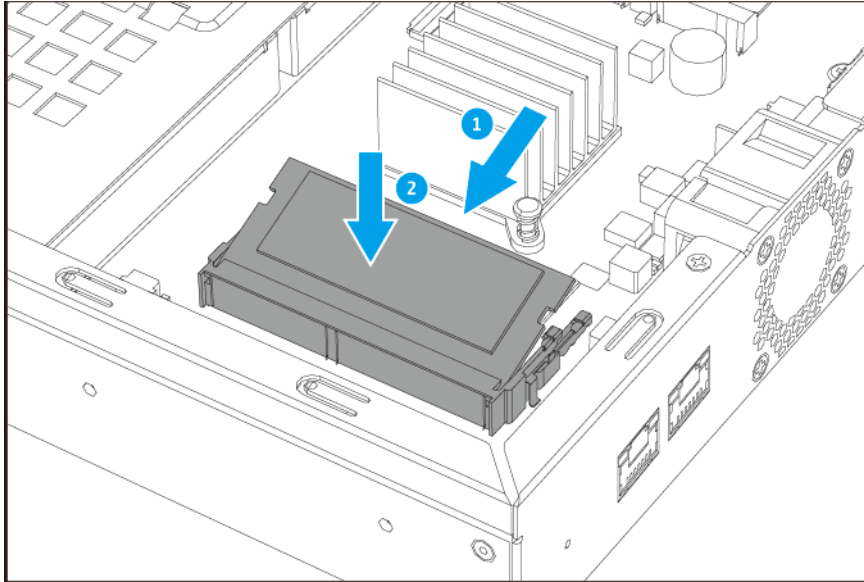


警告

- 请勿触摸内部组件，特别是金属接头。
- 不要折弯模块。

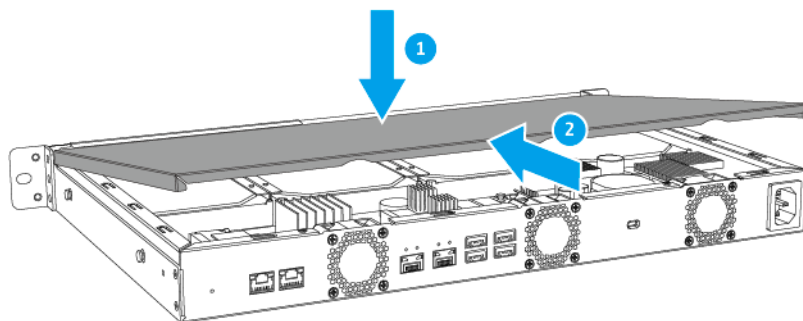
6. 安装新模块。

- a. 将凹口与插槽内的凸起对齐。
- b. 将模块插入插槽中。
- c. 确认金属接头已完全插入插槽中。
- d. 小心地向下按压模块，直到固定夹将模块锁定到位。

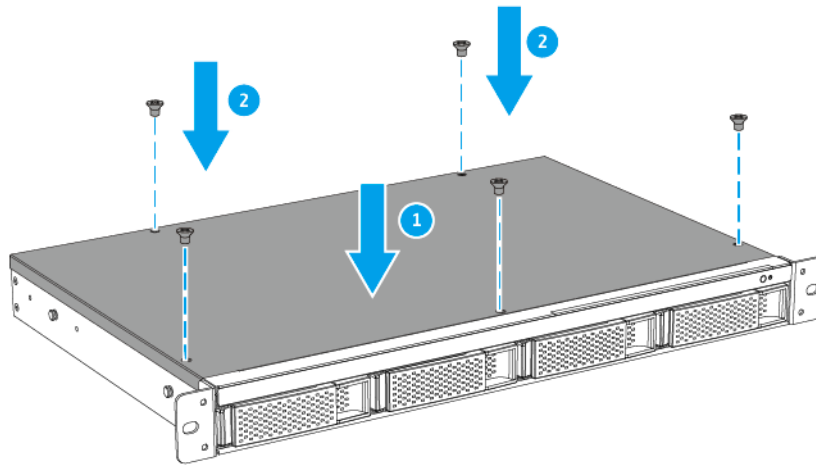


7. 安装外壳盖。

- a. 将盖板放在设备上。
- b. 将盖板向前滑动。



- c. 拧紧螺丝。



8. 连接所有线缆和外接部件。
9. 启动设备。
10. 确认设备能够识别该模块。
 - a. 以管理员身份登录 QTS。
 - b. 转到**控制台** > **系统** > **系统状态** > **硬件信息**。
 - c. 检查**内存总容量**值。

安装扩展单元

TS-435XeU 支持 USB 扩展单元。有关详细信息，请参见下表。

您可以从 QNAP 或授权经销商处购买存储扩展配件。

有关详细信息，请转到 <https://shop.qnap.com/>。

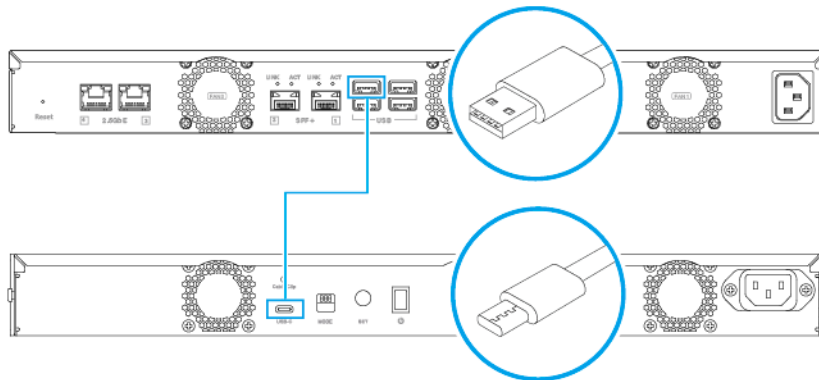
有关兼容扩展单元的列表和最大可应用扩展单元数，请转到 <http://www.qnap.com/go/compatibility-expansion>。

扩展单元型号	描述	所需配件
TR-002	<ul style="list-style-type: none"> • 使用 USB 3.2 Gen 2 C 型接口 • 支持 SATA 硬盘 	<ul style="list-style-type: none"> • USB 3.2 Gen 2 A 型至 C 型线缆 • USB 3.2 Gen 2 C 型至 C 型线缆
TR-004	<ul style="list-style-type: none"> • 使用 USB 3.2 Gen 1 C 型接口 • 支持 SATA 硬盘 	<ul style="list-style-type: none"> • USB 3.2 Gen 2 A 型至 C 型线缆 • USB 3.2 Gen 2 C 型至 C 型线缆

扩展单元型号	描述	所需配件
TR-004U	<ul style="list-style-type: none"> 使用 USB 3.2 Gen 1 C 型接口 支持 SATA 硬盘 	<ul style="list-style-type: none"> USB 3.2 Gen 1 A 型至 C 型线缆 USB 3.2 Gen 2 C 型至 C 型线缆 RAIL-B02
TL-D800C	<ul style="list-style-type: none"> 使用 USB 3.2 Gen 2 C 型接口 支持 SATA 硬盘 	<ul style="list-style-type: none"> USB 3.2 Gen 2 A 型至 C 型线缆 USB 3.2 Gen 2 C 型至 C 型线缆
TL-R1200C-RP	<ul style="list-style-type: none"> 使用 USB 3.2 Gen 2 C 型接口 支持 SATA 硬盘 	<ul style="list-style-type: none"> USB 3.2 Gen 2 A 型至 C 型线缆 USB 3.2 Gen 2 C 型至 C 型线缆 RAIL-B02

要将 TS-435XeU 连接到 USB 扩展单元，需要 USB A 型至 USB C 型线缆或 USB C 型至 USB C 型线缆。

1. 确认 NAS 已关机。
2. 将扩展单元连接到 NAS。
 - a. 将 USB 线缆连接到 NAS 上的 USB 3.2 Gen 2 A 型端口或 USB C 型端口。



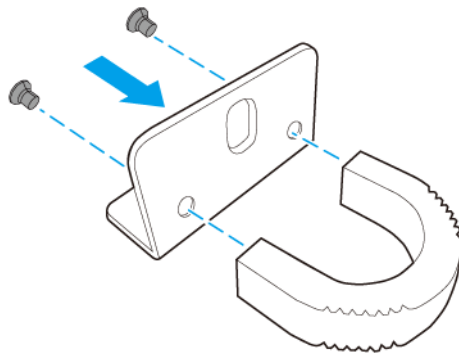
3. 为扩展单元接通电源。
4. 启动 NAS 电源。
5. 确认 NAS 能够识别扩展单元。
 - a. 以管理员身份登录 QTS。

- b. 转到主菜单 > 存储与快照总管 > 概述 > 系统。
- c. 确认扩展单元已列出。

安装手柄

安装手柄可以便于拿取和将 NAS 更牢固地固定在机架上。TS-435XeU 的手柄需要人工安装。

1. 关闭 NAS 电源。
2. 将手柄安装到角码上。
 - a. 将手柄上的开孔对准角码上的两个圆螺丝孔。
 - b. 装上螺丝，将手柄固定在角码上。

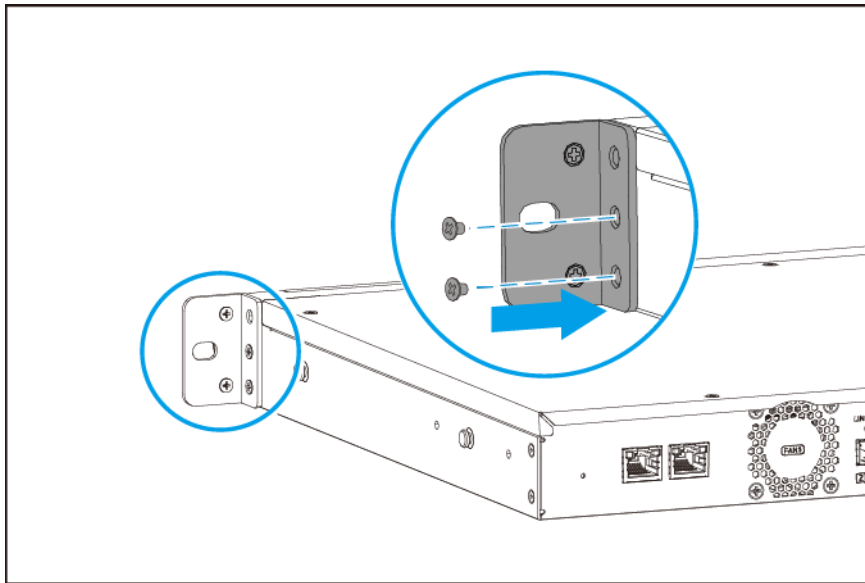


3. 将角码安装到设备上。
 - a. 将角码上的孔对准机箱上的孔。



注
确保手柄与前面板朝向一致。

- b. 安装螺丝。



4. 将第二个手柄安装到机箱的另一侧。
5. 启动 NAS 电源。

QTS 安装

TS-435XeU 使用 QNAPQTS 操作系统。可以使用以下任一方法安装 QTS。

方法	描述	要求
Qfinder Pro 安装 (推荐)	如果 NAS 已连接到您的局域网，可以执行以下操作： <ul style="list-style-type: none"> • 使用 Qfinder Pro 定位 NAS。 • 完成“智能安装指南”向导中的步骤。 	<ul style="list-style-type: none"> • 计算机 • 网线 • Qfinder Pro 安装程序
云安装	如果 NAS 已连接到 Internet，可以执行以下操作： <ul style="list-style-type: none"> • 扫描 NAS 上的二维码。 • 指定 Cloud Key。 • 登录您的 myQNAPcloud 帐户。 • 使用 myQNAPcloud Link 远程访问 NAS。 • 完成“智能安装指南”向导中的步骤。 	<ul style="list-style-type: none"> • 计算机或移动设备 • 网线 • myQNAPcloud 帐户 • Cloud Key

使用 Qfinder Pro 安装 QTS



警告

安装 QTS 将删除硬盘上的所有数据。请先备份您的数据，然后再继续。

1. 启动 NAS 电源。
2. 将 NAS 连接到您的局域网中。
3. 在已连接到同一局域网的计算机上运行 Qfinder Pro。

**注**

要下载 Qfinder Pro，请转到 <https://www.qnap.com/utilities>。

4. 在列表中找到 NAS，然后双击名称或 IP 地址。
5. 执行以下任一操作。
 - 要检查是否有可供使用的最新版本，单击**开始**。
向导会下载可供使用的最新版本，下载完成后，NAS 会重新启动。如果没有更新的版本，向导会自动显示**智能安装指南**。
 - 要安装立即可用的版本，单击**跳过**。
6. 单击**启动智能安装指南**。
此时会出现**输入 NAS 名称和管理员密码**屏幕。
7. 指定以下信息。
 - **NAS 名称**：指定 1 至 14 个字符的名称。名称支持字母（A 到 Z、a 到 z）、数字（0 到 9）和连字符 (-)，但不能以连字符结尾。
 - **密码**：指定 1 至 64 个字符的管理员密码。密码支持所有 ASCII 字符。
8. 单击**下一步**。
此时会出现**设置日期和时间**屏幕。
9. 指定时区、日期和时间。

**提示**

QNAP 建议连接到 NTP 服务器，以确保 NAS 遵循协调世界时 (UTC) 标准。

10. 单击**下一步**。
此时会出现**配置网络设置**屏幕。
11. 选择**自动获取 IP 地址(DHCP)**。
12. 单击**下一步**。
此时会出现**跨平台文件传输服务**屏幕。
13. 选择将用于访问 NAS 上共享文件夹的设备类型。
14. 单击**下一步**。
此时会出现**摘要**屏幕。
15. 检查设置。
16. 单击**应用**。
此时会出现**确认消息**。

**警告**

单击**确认**后，将先删除硬盘上的所有数据，然后再安装 QTS。

17. 单击**确认**。
QTS 即安装完毕。

使用 Cloud Key 安装 QTS



警告

安装 QTS 将删除硬盘上的所有数据。请先备份您的数据，然后再继续。

1. 启动 NAS 电源。
2. 将 NAS 连接到 Internet。
3. 使用以下方法之一转到“QNAP Cloud 安装”页面：
 - 在您的计算机上，转到 <http://install.qnap.com/>。
 - 使用移动设备扫描 NAS 上的二维码。

网页中会列出本地网络上所有尚未初始化的 QNAP NAS 设备。

4. 从列表中找到您的 NAS，然后单击**初始化**。



注

如果未列出您的 NAS，请按网页上的说明指定 NAS 上的 Cloud Key。

安装向导将在默认 Web 浏览器中打开。

5. 创建帐户或登录 myQNAPcloud。



注

创建帐户后，您必须返回此页面才能完成安装。

6. 为 NAS 指定 myQNAPcloud 设备名称。



注

- myQNAPcloud 设备名称用于远程访问 NAS。
- 因安全原因，在您的 NAS 上初始化 myQNAPcloud Link 远程连接服务后，会将其禁用。通过 LAN 连接到 QTS，然后安装 myQNAPcloud Link 可启用此服务。

7. 单击**下一步**。
8. 执行以下任一操作。
 - 要检查是否有可供使用的最新版本，单击**开始**。
向导会下载可供使用的最新版本，下载完成后，NAS 会重新启动。如果没有更新的版本，向导会自动显示**智能安装指南**。
 - 要安装立即可用的版本，单击**跳过**。
9. 单击**启动智能安装指南**。
10. 指定以下信息。
 - **NAS 名称**：指定 1 至 14 个字符的名称。名称支持字母（A 到 Z、a 到 z）、数字（0 到 9）和连字符（-），但不能以连字符结尾。
 - **密码**：指定 1 至 64 个字符的管理员密码。密码支持所有 ASCII 字符。

11. 单击**下一步**。
此时会出现**设置日期和时间**屏幕。

12. 指定时区、日期和时间。

**提示**

QNAP 建议连接到 NTP 服务器，以确保 NAS 遵循协调世界时 (UTC) 标准。

13. 单击**下一步**。
此时会出现**配置网络设置**屏幕。
14. 选择**自动获取 IP 地址(DHCP)**。
15. 单击**下一步**。
此时会出现**跨平台文件传输服务**屏幕。
16. 选择将用于访问 NAS 上共享文件夹的设备类型。
17. 单击**下一步**。
此时会出现**摘要**屏幕。
18. 检查设置。
19. 单击**应用**。
此时会出现确认消息。

**警告**

单击**确认**后，将先删除硬盘上的所有数据，然后再安装 QTS。

20. 单击**确认**。
QTS 即安装完毕。


4. 基本操作

本章介绍 NAS 的基本操作。

电源按钮

操作	用户操作	结果
启动电源	按下此按钮一次。	设备开机。
关闭电源	按住此按钮 1.5 秒钟。	设备关机。
强制关机	按住此按钮 5 秒钟。	设备关机。  重要 仅当设备无响应时才能使用此方法。

重置按钮

操作	用户操作	结果
基本系统重置	按住此按钮 3 秒钟。	以下设置将重置为默认值： <ul style="list-style-type: none"> 系统管理员密码：默认密码为第一个 MAC 地址（去掉特殊字符），以大写字母表示。例如，如果第一个 MAC 地址为 00-08-9B-F6-15-75，则管理员密码将为 00089BF61575。  提示 您可以使用 Qfinder Pro 找到第一个 MAC 地址。设备上粘贴的标签也会在 MAC1 下列出此地址。 <ul style="list-style-type: none"> TCP/IP 配置： <ul style="list-style-type: none"> 通过 DHCP 自动获取 IP 地址设置 禁用巨型帧 系统端口：8080（系统服务端口） 安全等级：低（允许所有连接） LCD 面板密码：（空白）
高级系统重置	按住此按钮 10 秒钟。	恢复默认出厂设置。 要在高级系统重置后检索旧数据，请在 NAS 上重新创建先前的文件夹结构。

LED

开启设备电源后，LED 指示灯会指示系统状态和相关信息。以下 LED 信息仅适用于硬盘已正确安装并且设备已连接到网络或主机的情况。

有关 LED 位置的详细信息，请参见[组件](#)。

LED	状态	描述
系统状态	红绿交替闪烁，间隔 0.5 秒	<ul style="list-style-type: none"> • 硬盘正在格式化。 • 设备正在初始化。 • 操作系统正在更新。 • RAID 正在重建。 • 正在进行在线 RAID 容量扩展。 • 正在进行在线 RAID 级别迁移。
	红色	<ul style="list-style-type: none"> • 硬盘无效。 • 磁盘卷的容量已满。 • 磁盘卷的容量即将被占满。 • 系统风扇故障。 • 访问（读/写）数据时出错。 • 在硬盘上检测到坏扇区。 • 设备处于降级只读模式（RAID 5 或 RAID 6 中的两个成员硬盘出现故障，但仍可读取数据）。
	闪烁红色，间隔 0.5 秒	设备处于降级模式（RAID 1、RAID 5 或 RAID 6 中的一个成员硬盘出现故障）。
	闪烁红色一次	设备收到遥控器的命令。
	绿色	设备已就绪。
	闪烁绿色，间隔 0.5 秒	<ul style="list-style-type: none"> • 设备未配置。 • 硬盘未格式化。
	熄灭	<ul style="list-style-type: none"> • 所有硬盘都处于待机模式。 • 设备已关机。
云端硬盘	闪烁红色	正在访问数据，但在此过程中发生读/写错误。
	红色	发生硬盘读/写错误。
	闪烁绿色	正在访问数据。
	绿色	硬盘就绪。
	熄灭	未检测到硬盘。
M.2 SSD	闪烁红色	正在访问数据，但在此过程中发生读/写错误。
	红色	发生硬盘读/写错误。
	闪烁绿色	正在访问数据。
	绿色	硬盘就绪。
	熄灭	未检测到硬盘。
LAN	橙色	网络连接正在运行。

LED	状态	描述
10 GB 以太网 (SFP+) 链路	绿色	网络连接以 10 Gbps 的速度运行
	熄灭	没有网络连接。
10 GB 以太网 (SFP+) 活动	橙色	网络连接已建立。
	闪烁橙色	正在传输数据。
	熄灭	没有网络连接。
2.5 Gb 以太网速度	绿色	网络连接以 2.5 Gbps 的速度运行。
	橙色	网络连接以 1 Gbps 的速度运行。
	熄灭	<ul style="list-style-type: none"> • 网络连接以 100 Mbps 的速度运行。 • 没有网络连接。
2.5 Gb 以太网活动	橙色	网络连接已建立。
	闪烁橙色	正在从网络访问设备。
	熄灭	没有网络连接。
USB	蓝色	检测到一个 USB 设备连接到 USB 端口。
	熄灭	未检测到 USB 扩展单元。

警告音

时长	频率	描述
短提示音 (0.5 秒)	1	<ul style="list-style-type: none"> • NAS 正在启动。 • 按下重置按钮 3 秒钟后, NAS 将重置配置。 • 按下重置按钮 10 秒钟后, NAS 将重置配置并重新启动。
	3	<ul style="list-style-type: none"> • 固件已更新。 • 无法检测到已安装的磁盘。
长提示音 (1.5 秒)	1	<ul style="list-style-type: none"> • NAS 已成功开机并准备就绪。 • 按下电源按钮 1.5 秒钟后, NAS 将关机。
	2	<ul style="list-style-type: none"> • NAS 已通过强制关闭关机 (硬件关闭)。 • 磁盘卷的容量即将被占满。 • 磁盘卷的容量已满。 • 硬盘处于降级模式。 • 硬盘正在重建。
	3 (每 5 分钟)	系统风扇故障。

5. NAS 迁移

通过将所有硬盘从源 NAS 安装到目标 NAS，可以将数据和设置从当前 NAS 迁移到另一个型号的 NAS，从而使中断次数降到最低。迁移后，目标 NAS 上将保留 RAID 配置和其他设置。

NAS 迁移要求

只能将硬盘迁移到特定的 NAS 型号，具体取决于源 NAS。有关与直接 NAS 迁移兼容的 NAS 型号的列表，请参见 <https://www.qnap.com/en/nas-migration>。

设备必须符合以下要求：

- QTS NAS 支持多种类型的 NAS 迁移：
 - ARM NAS 至 ARM NAS
 - x86 NAS 至 x86 NAS
 - ARM NAS 至 x86 NAS



注

无法从 x86 NAS 迁移至 ARM NAS。


- 目标 NAS 必须在与源 NAS 相同的 QTS 版本（或更高版本）上运行。
- 目标 NAS 必须有足够可用的硬盘架，以容纳要从源 NAS 迁移的所有硬盘。

对于不支持 NAS 迁移的 NAS 型号，可以使用 HBS 3 迁移现有数据。有关详细信息，请参见 [使用 HBS 3 迁移 NAS 数据](#)。

NAS 迁移后的状态和设置变化

迁移后，NAS 数据和设置的状态会发生变化。

数据和设置	NAS 迁移后
注册的 myQNAPcloud 名称	注册的 myQNAPcloud 名称不会迁移。
加密的磁盘卷	<p>如果 NAS 不支持文件系统加密，加密的磁盘卷不会迁移。</p> <p> 警告 为防止数据丢失，请备份加密磁盘卷的加密密钥并将其保存在安全的位置。也可以选择迁移之前解密磁盘卷。</p>
共享文件夹	<p>所有共享文件夹及其中存储的下载文件都会得到保留。</p> <p> 警告 为防止数据丢失，请在迁移之前备份加密共享文件夹的加密密钥或密码，并将其保存在安全的位置。</p> <p> 重要 迁移后，必须重新配置目标 NAS 上的文件夹权限。</p>

数据和设置	NAS 迁移后
网络	<ul style="list-style-type: none"> 如果目标 NAS 上的网络端口数量或规格与源 NAS 不同，则以下网络和虚拟设置可能会更改并需要重新配置：端口中继、虚拟机、Thunderbolt、USB QuickAccess 等。 在 QTS 4.3.5 或更早版本上运行源 NAS 时，必须重新配置网络设置。
Windows AD 配置	必须重新配置 Windows AD 配置。
许可证	许可证不会迁移。  警告 为防止丢失所有软件许可证，QNAP 建议在数据迁移之前停用源 NAS 上的许可证。
应用程序	如果目标 NAS 的 RAM 少于源 NAS，则以下功能和应用程序可能无法运行：Virtualization Station、Qsirch 和快照。
服务	只能使用目标 NAS 支持的服务。
多媒体功能	默认情况下，会禁用某些多媒体功能。

迁移 NAS



重要

执行 NAS 迁移之前，请确保您已了解所有要求以及迁移后可能发生的变化。有关详细信息，请参见以下主题：

- [NAS 迁移要求](#)
- [NAS 迁移后的状态和设置变化](#)

1. 关闭源 NAS 和目标 NAS。
2. 取下硬盘。



重要

QNAP 建议在安装硬盘时按照源 NAS 硬盘顺序安装。拆除硬盘时，记下硬盘托盘顺序。

- a. 从源 NAS 中取下硬盘。
 - b. 从目标 NAS 中取下硬盘托盘。
3. 安装硬盘。
 - a. 将源 NAS 硬盘安装到目标 NAS 硬盘托盘上。
 - b. 将硬盘托盘插入目标 NAS 中。
 4. 启动目标 NAS 的电源。
 5. 在目标 NAS 上以管理员身份登录 QTS。
目标 NAS 会自动检查最新固件更新。

使用 HBS 3 迁移 NAS 数据

对于不支持直接迁移的 NAS 型号，可以首先初始化目标 NAS，然后使用 HBS 3 将数据从源 NAS 复制到目标 NAS。

准备目标 NAS

1. 登录 QTS。
2. 创建一个或多个存储池。
有关详细信息，请参见《QTS 用户指南》的“创建存储池”主题。
3. 创建一个或多个卷。
有关详细信息，请参见《QTS 用户指南》的“创建卷”主题。
4. 在目标 NAS 上创建共享文件夹。
有关详细信息，请参见《QTS 用户指南》的“创建共享文件夹”主题。
5. 将 HBS 3 安装到目标 NAS 上。
 - a. 转到 **App Center**。
 - b. 搜索 HBS 3。
 - c. 单击**安装**。
HBS 3 已安装在目标 NAS 上。
6. 启用目标 NAS 上的远程服务器设置。
 - a. 转到 **App Center > HBS 3 > 服务 > RTRR 服务器**。
 - b. 单击**启用 RTRR 服务器**。
此时会出现“RTRR 服务器设置”窗口。
 - c. 指定 **RTRR 服务器**设置。



设置	描述
密码	指定由以下各组中的任何字符构成，包含 1 至 16 个字符的密码： <ul style="list-style-type: none"> • 字母：A 至 Z、a 至 z • 数字：0 至 9 • 特殊字符：.-_~!@#\$%^&(){} • 不以空格开头或结尾。
端口	指定用于访问 RTRR 服务器的端口号。

7. 单击**应用**。
此时会出现确认窗口。
8. 单击**确定**。
已完成远程服务器设置。

创建单向同步作业

1. 在源 NAS 上，转到 **App Center > HBS 3 > 同步**。
2. 单击**立即同步**。
3. 选择**单向同步作业**。
此时会出现**创建同步作业**窗口。

4. 单击**远程 NAS**。
5. 单击**添加新帐户**。
此时会出现**创建存储空间**窗口。
6. 选择目标 **NAS** 作为目标存储空间并指定以下内容：

设置	描述
名称	用于标识存储空间的名称。
IP 地址/主机名	用于访问存储空间的 IP 地址或主机名。  提示 单击  扫描可用设备。
端口	用于访问存储空间的端口号。 此值必须介于 1 至 65535 之间。
密码	用于访问存储空间的密码。
使用 SSL 连接	访问远程 NAS 时需要 SSL 连接。



7. 可选: 测试连接。

测试	描述
检测服务器	测试所选存储空间的可访问性。
速度测试	测试所选存储空间的网络连接速度。

8. 单击**创建**。
9. 单击**选择**。
10. 选择配对文件夹。



重要

- 所选文件夹中的所有子文件夹和文件都会被选中。
 - 每个作业最多只能同步 16 个配对文件夹。
- a. 在来源的下方，单击 。
此时会打开一个对话框。
 - b. 选择一个文件夹。
 - c. 单击**确定**。
该对话框关闭。
 - d. 在目标的下方，单击 。
此时会打开一个对话框。
 - e. 选择一个文件夹。
 - f. 单击**确定**。
 - g. 可选: 必要时可以添加更多配对文件夹。
11. 单击**下一步**。
此时会出现**计划**屏幕。

12. 选择**立即同步**。
13. 单击**下一步**。
此时会出现**规则**屏幕。
14. 可选: 配置作业规则。
15. 单击**下一步**。
此时会出现**摘要**屏幕。
16. 查看作业摘要。
17. 单击**创建**。
源 NAS 运行创建的单向同步作业。

**注**

将共享文件夹从源 NAS 迁移到目标 NAS 可能需要数分钟。

将本地用户或组设置导入目标 NAS

1. 启动源 NAS 的电源。
2. 从源 NAS 备份用户或组设置。
 - a. 登录 QTS。
 - b. 转到**控制台 > 权限 > 用户**
 - c. 单击**创建**，然后单击**导入/导出用户**。
此时会出现**导入/导出用户**窗口。
 - d. 选择**导出用户和用户组设置**。
 - e. 单击**下一步**。
NAS 用户和用户组设置将导出为文件，并下载到您的计算机上。
3. 源 NAS 上的用户设置已导入目标 NAS。
 - a. 在目标 NAS 上，登录 QTS。
 - b. 转到**控制台 > 权限 > 用户**。
 - c. 单击**创建**，然后单击**导入/导出用户**。
 - d. 选择**导入用户和用户组设置**。

**注**

可以选择向新创建的用户发送通知邮件或覆盖重复用户。

- e. 在您的计算机上，选择从源 NAS 导出的用户设置文件。
源 NAS 用户设置文件已导入目标 NAS。

6. 故障排除

本章介绍基本故障排除信息。

强制 Qfinder Pro 或 myQNAPcloud 定位 NAS

如果在 QTS 安装过程中 Qfinder Pro 或 myQNAPcloud 无法定位 NAS，则硬盘或数据可能有故障。

1. 关闭 NAS 电源。
2. 取下所有硬盘。
3. 启动 NAS 电源。
4. 使用 Qfinder Pro 或 myQNAPcloud 定位 NAS。
5. 重新插入硬盘。
6. 继续安装 QTS。

热插拔故障硬盘

在以下情况下，NAS 支持热插拔硬盘：

RAID 类型	磁盘数量	情形
RAID 1	2	一个成员硬盘有故障。
RAID 5	≥ 3	一个成员硬盘有故障。
RAID 6	≥ 4	一个或两个成员硬盘有故障。
RAID 10	≥ 4（必须为偶数）	处于两个不同对中的一个或两个成员硬盘有故障。

1. 登录 QTS。
2. 转到主菜单 > 存储与快照总管 > 存储 > 磁盘/VJBOD。
3. 找到发生故障的硬盘。
4. 准备一个与故障硬盘具有相同或更大容量的新硬盘。
5. 从设备中取下故障硬盘。
6. 等待 20 秒或设备发出两声提示音。
7. 从硬盘托盘中取下故障硬盘。
8. 将新硬盘插入硬盘托盘中。
9. 安装新硬盘。
此时 NAS 会发出两声提示音。
10. 转到主菜单 > 存储与快照总管 > 存储空间。
11. 找到包含新硬盘的卷，然后确认状态为正在重建。

恢复被意外移除的正常硬盘

NAS 支持独有的 RAID 恢复技术，可以从意外断开或移除的硬盘中恢复发生故障的 RAID 磁盘卷。用户可以从降级模式恢复非活动 RAID 1、RAID 5、RAID 6 或 RAID 10 卷。

磁盘卷	RAID 恢复支持	磁盘数量	被移除硬盘的最大数量
单盘	否	1	不适用
JBOD	是	≥ 2	不适用
RAID 0	是	≥ 2	不适用
RAID 1	是	2	1
RAID 5	是	≥ 3	1
RAID 6	是	≥ 4	2
RAID 10	否	≥ 4 (必须为偶数)	处于两个不同对中的一个或两个成员硬盘有故障。

支持和其他资源

QNAP 提供了以下资源：

资源	URL
文档	https://download.qnap.com
兼容性列表	https://www.qnap.com/compatibility
NAS 迁移兼容性	https://www.qnap.com/en/nas-migration
扩展单元兼容性	http://www.qnap.com/go/compatibility-expansion
服务门户	https://service.qnap.com
产品支持状态	https://www.qnap.com/en/product/eol.php
下载	https://download.qnap.com
社区论坛	https://forum.qnap.com
QNAP 配件商店	https://shop.qnap.com

7. 术语表

Cloud Key

分配给每个 NAS 设备的唯一 8 位数代码

myQNAPcloud

提供各种远程访问服务，如 DDNS 和 myQNAPcloud Link

myQNAPcloud Link

可用于通过 Internet 访问 NAS，而且不必配置复杂的端口转发设置

QNAP ID

用户帐户，可用于使用 myQNAPcloud 远程访问和其他 QNAP 服务

Qfinder Pro

一种 QNAP 实用工具，可用于查找和访问局域网中的 QNAP NAS 设备

QTS

QNAP NAS 操作系统

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Version 3, 29 June 2007

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- a. Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
- b. Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- c. Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- d. Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

- e. Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A “User Product” is either (1) a “consumer product”, which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, “normally used” refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

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Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

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FCC 声明

FCC B 类声明



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VCCI - B

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SJ/T 11364-2006



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显示	0	0	0	0	0	0
印刷电路板	0	0	0	0	0	0
金属螺帽	0	0	0	0	0	0
电缆组装	0	0	0	0	0	0
风扇组装	0	0	0	0	0	0
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