

The QNAP logo is displayed in white, bold, uppercase letters within a blue rounded rectangular box in the top-left corner of the page.

HS-453DX

用户指南

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1. 重要信息

原始包装

请保留原始包装和包装材料。如果要产品退货或寄回进行修理，请使用原始包装以免损坏。

对于因包装不当受损的产品，QNAP 保留不提供退款或保修服务的权利。

硬件缺陷

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](#)。

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。

警告



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

警告



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。



为避免受到严重伤害，安装或更换系统组件前，经培训的维修技师必须先从设备拔下所有电源单元线。

运动的部件

警告



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任何正在转动的风扇叶片。



运动的组件： 使您的身体各部位远离任何正在运动的其他组件。

设备不适合在儿童可能会出现场所使用。

系统电池

警告



摄入危险

- 此产品配有纽扣电池。
- 请避免儿童接触电池。
- 如果被吞食，锂纽扣电池可能会在 2 小时内导致严重或致命伤害。
- 如果您认为可能电池已被吞食或部于身体的某个部位，请立即就医求助。

- 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。
- 即使是使用过的电池，也可能导致严重伤害或死亡。
- 有关诊疗信息，请致电当地中毒控制中心。
- 有关设备中纽扣电池类型和电压的信息，请参见硬件规格表。

- 非充电电池不可充电。
- 请勿强行放电、充电、拆卸、加热或焚烧。这样做可能会导致因通风、泄漏或爆炸造成的化学烧伤而导致的伤害。
- 确保电池按照极性 (+ 和 -) 正确安装。
- 请勿将新旧电池或不同品牌、不同类型的电池 (如碱性电池、碳锌电池、充电电池等) 混用。
- 对于长时间不使用的设备, 请根据当地法规取出并立即回收或处理电池。
- 始终完全固定电池盒。如果电池盒无法牢固关闭, 请停止使用本产品, 取出电池, 并将电池置于儿童接触不到的地方。

导轨套件

机架式型号可能需要导轨套件以便安装到服务器机架或机柜上。

为确保设备和人身安全, 在安装导轨套件和安装设备之前, 请仔细阅读导轨套件的安装说明。

要检查您的设备是否为机架式设备, 请参见硬件规格表。

警告

- 当导轨套件安装在服务器机架上时, 除安装或拆卸设备外, 请勿将导轨完全展开或拔掉门锁。
- 如果导轨完全展开并拔掉门锁, 可能会导致重型设备坠落。这可能会导致设备损坏, 以及严重甚至致命的伤害。
- 在准备导轨以安装或拆卸设备前, 请仔细阅读并确保理解安装说明。
- 安装或拆卸设备时, 请勿在设备或导轨上放置任何物品或增加任何额外的负重。
- 安装设备时, 请将设备完全推入服务器机架, 使导轨完全锁住, 并将设备固定在服务器机架上。

2. 产品概述

本章提供有关 QNAP HS-453DX NAS 的基本信息。

关于 HS-453DX

HS-453DX 是一款四硬盘静音 NAS，配有 Intel® Celeron® J4115 四核 1.8 GHz 处理器或 Intel® Celeron® J4105 四核 1.5 GHz 处理器和高达 8 GB 的 DDR4 内存。除了前面的两个硬盘架外，HS-453DX 还有两个内部 M.2 SATA SSD 插槽，可进一步提升数据管理能力。HS-453DX 特别配备了千兆位和 10 GB 以太网端口来增强连接性，还有两个 HDMI 端口提供额外的多媒体支持。

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>。

组件	HS-453DX
订购信息	
订购部件号	<ul style="list-style-type: none"> • HS-453DX-4G • HS-453DX-8G
处理器	
CPU	Intel® Celeron® J4115 Intel® Celeron® J4105
频率	4 核/4 线程 1.8 GHz 基本/2.5 GHz 脉冲 4 核/4 线程 1.5 GHz 基本/2.5 GHz 脉冲
架构	x86 64 位
加密引擎	AES-NI

组件	HS-453DX
内存	
预安装内存	<ul style="list-style-type: none"> • 4 GB RAM: 2 x 2 GB SODIMM DDR4 • 8 GB RAM: 2 x 4 GB SODIMM DDR4
内存插槽	2 x SODIMM DDR4 <div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 10px; margin-top: 10px;"> <p>重要</p> <p>请仅使用 QNAP 内存模块，以保证系统性能和稳定性。对于有多个内存插槽的 NAS 设备，请使用规格相同的 QNAP 模块。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。</p> </div>
最大内存	8 GB RAM: 2 x 4 GB
闪存	4 GB (双重引导操作系统保护)
存储	
硬盘架	2 x 3.5 英寸 SATA 6 Gbps
硬盘兼容性	<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 SATA 6 Gbps
M.2 SSD 外形规格	2280
SSD 缓存加速支持	<ul style="list-style-type: none"> • 3.5 英寸硬盘架: 1 和 2 • M.2 SSD 插槽: 1 和 2
热插拔	本设备支持热插拔硬盘，以下各项除外： <ul style="list-style-type: none"> • M.2 SSD • SSD 缓存硬盘
网络	
10 Gb 以太网端口	1 x 10 GbE RJ45
千兆位以太网端口	1 x GbE RJ45

组件	HS-453DX
外部 I/O 端口和扩展插槽	
USB 端口	<ul style="list-style-type: none"> • 2 x USB 3.0 A 型 • 1 x USB 3.0 C 型 • 2 x USB 2.0 A 型
HDMI 端口	<ul style="list-style-type: none"> • 1 x HDMI 2.0 • 1 x HDMI 1.4b
音频端口	<ul style="list-style-type: none"> • 2 x 3.5 mm 动圈式麦克风插孔 • 1 x 3.5 mm 线路输出插孔 • 1 x 扬声器 <p>注意 扬声器和线路输出插孔不能同时使用。</p>
界面	
按钮	<ul style="list-style-type: none"> • 电源 • 重置
红外传感器	<p>1</p> <p>注意 HS-453DX 支持 QNAP RM-IR004 红外遥控器。</p>
尺寸	
外形规格	紧凑
尺寸 (高 x 宽 x 深)	42.8 x 404 x 220 mm (1.68 x 15.9 x 8.66 英寸)
净重	2.40 kg (5.29 磅)
其他	
电源单元	90W, 100-240V AC, 50/60 Hz

组件	HS-453DX
系统电池	CR2032 锂电池 (3V, 225 mAh) <div style="background-color: #ffe6e6; padding: 10px; margin-top: 10px;"> <p>警告</p> <p>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。</p> </div>
噪声声级	<ul style="list-style-type: none"> • 安装 2 个 2.5 英寸 SSD 时: 6.2 dB(A) • 安装 2 个 3.5 英寸 HDD 时: <ul style="list-style-type: none"> • 工作: 13.0 dB(A) • 待机: 6.2 dB(A) <div style="background-color: #e6f2ff; padding: 10px; margin-top: 10px;"> <p>注意</p> <p>噪声声级在距 NAS 一米以内的旁观者位置测得。测试 NAS 在环境噪声级别为 6.0 dB(A) 的环境下以低速运行。</p> </div>
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)

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>。

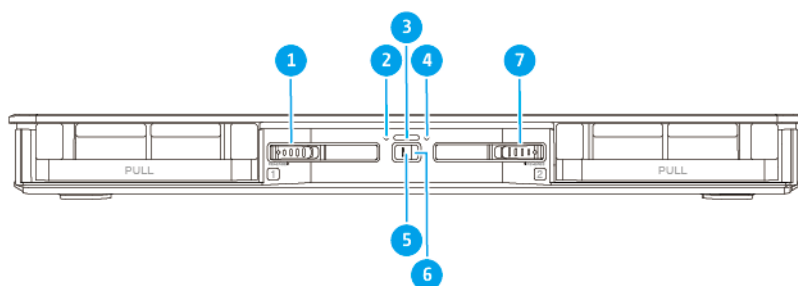
包装内容

项目	数量
HS-453DX NAS	1
交流电源适配器	1
电源线	1
以太网线	2
RM-IR004 红外 (IR) 遥控器	1
AAA 电池	2

项目	数量
适用于 3.5 英寸硬盘的螺丝	8
适用于 2.5 英寸硬盘的螺丝	6
M.2 SSD 螺丝	2
M.2 SSD 导热片	2
集成电路导热片	3
快速安装指南 (QIG)	1

组件

前面板



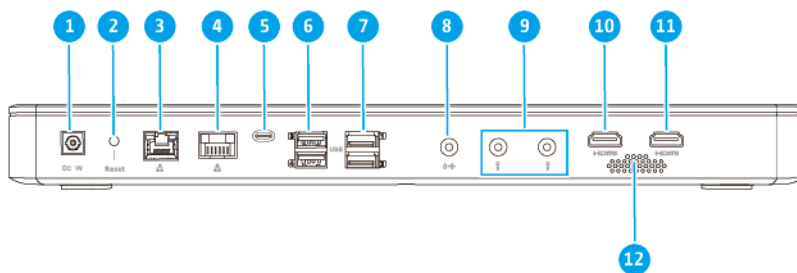
注意

此图所示为未安装前盖的 HS-453DX。

编号	组件	编号	组件
1	硬盘架 1 门锁	5	电源按钮
2	硬盘 1 LED	6	红外传感器

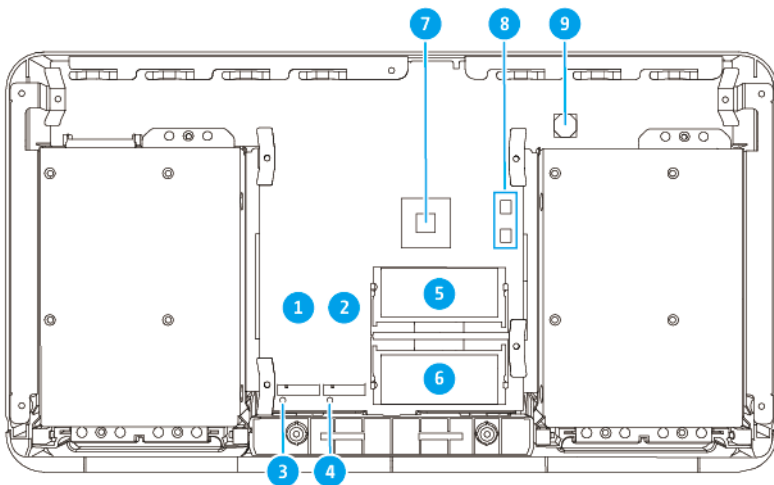
编号	组件	编号	组件
3	状态 LED	7	硬盘架 2 门锁
4	硬盘 2 LED	-	-

后面板



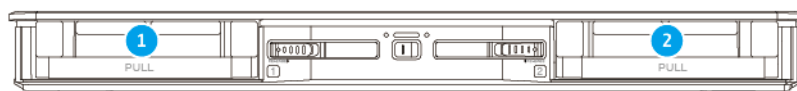
编号	组件	编号	组件
1	电源输入	7	USB 3.0 A 型端口
2	重置按钮	8	3.5 mm 线路输出插孔
3	GbE RJ45 端口	9	3.5 mm 动圈式麦克风插孔
4	10 GbE RJ45 端口	10	HDMI1.4b 端口 (HDMI 2)
5	USB 3.0 C 型端口	11	HDMI2.0 端口 (HDMI 1)
6	USB 2.0 A 型端口	12	扬声器

系统主板



编号	组件	编号	组件
1	M.2 SSD 插槽 1	6	内存插槽 2
2	M.2 SSD 插槽 2	7	CPU
3	M.2 SSD1 LED	8	MOSFET 集成电路
4	M.2 SSD2 LED	9	10 GbE 集成电路
5	内存插槽 1	-	-

正面硬盘编号



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
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。](#)
- [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和更换内存模块的信息。

硬盘安装

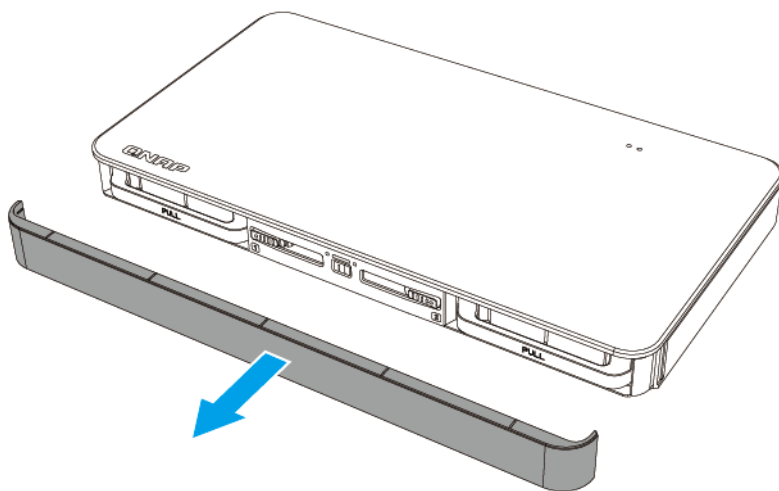
HS-453DX 兼容 3.5 英寸和 2.5 英寸硬盘以及 2.5 英寸固态硬盘和 M.2 固态硬盘。

在 3.5 英寸托盘上安装 3.5 英寸硬盘

警告

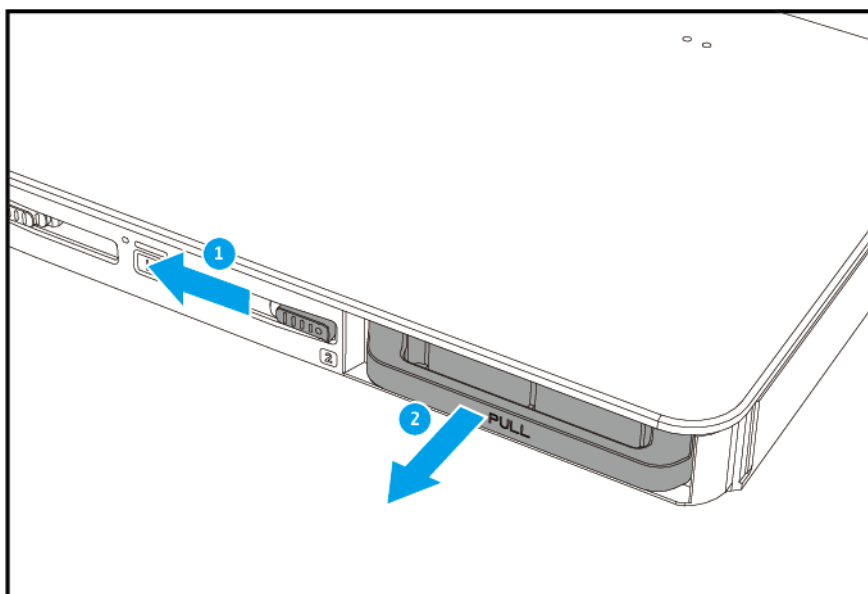
- 安装硬盘将删除硬盘上的所有数据。
- 请执行静电放电 (ESD) 规程，以避免组件损坏。

1. 取下前盖。



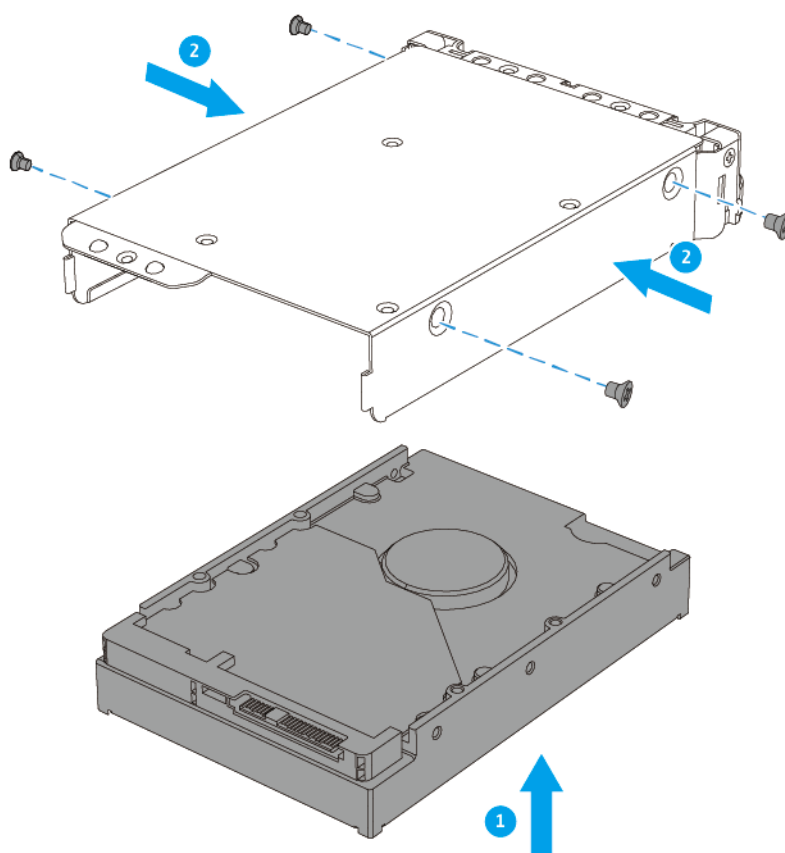
2. 关闭 NAS 电源。

3. 按压门锁的同时拉出硬盘托盘，取下该托盘。

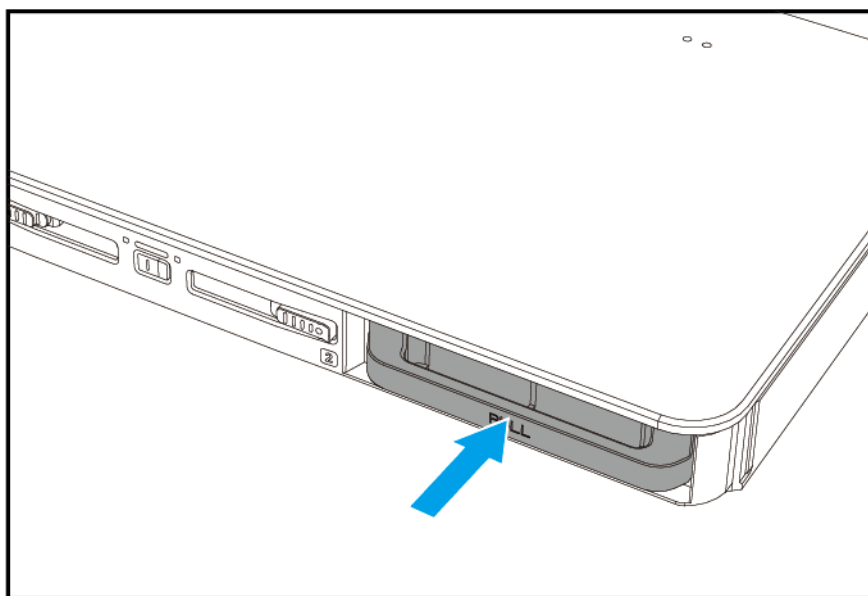


4. 将硬盘安装到托盘上。

- a. 将硬盘放在托盘上，使硬盘两侧的孔与托盘两侧的孔对齐。
- b. 安装螺丝。

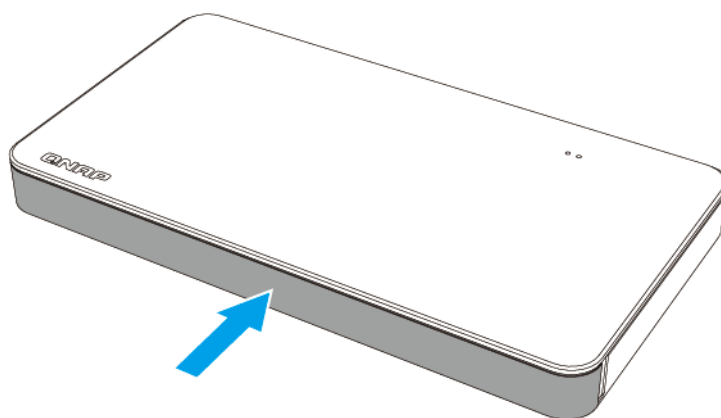


5. 将托盘插入硬盘架。



6. 启动 NAS 电源。

7. 安装前盖。

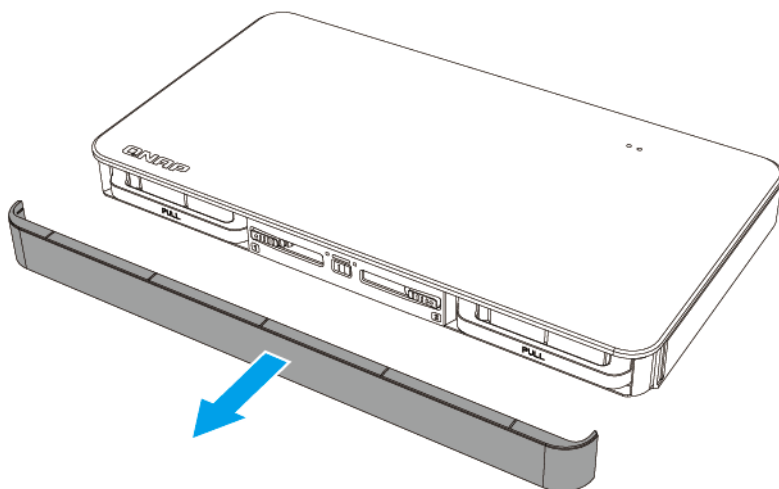


在 3.5 英寸托盘上安装 2.5 英寸硬盘

警告

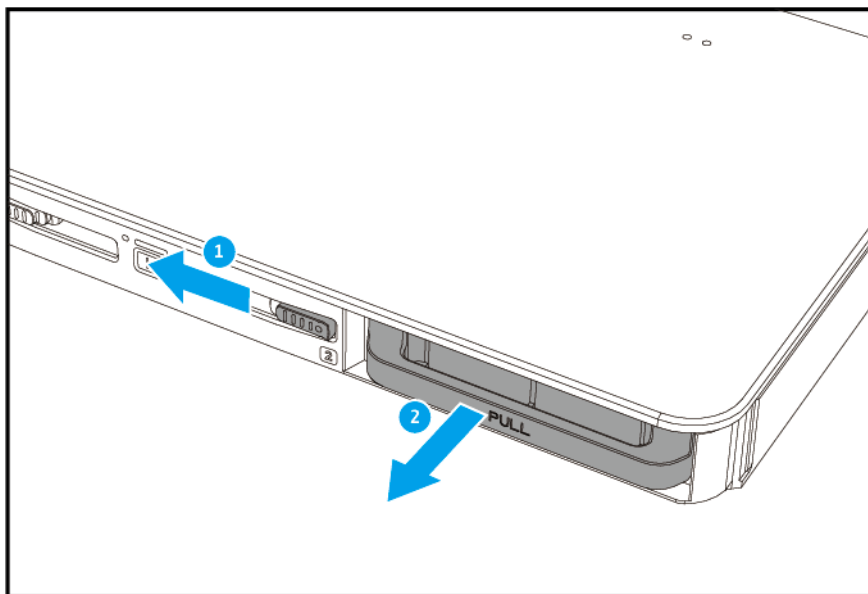
- 安装硬盘将删除硬盘上的所有数据。
- 请执行静电放电 (ESD) 规程，以避免组件损坏。

1. 取下前盖。



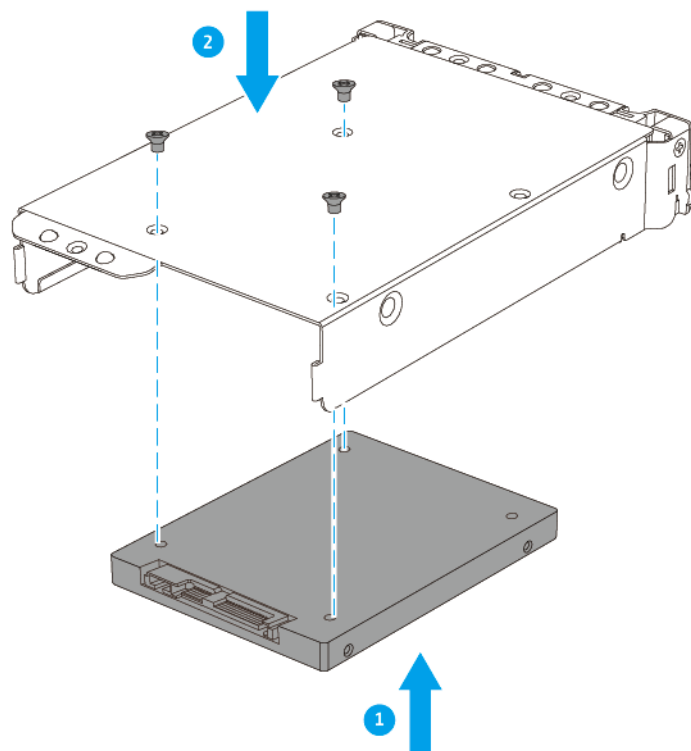
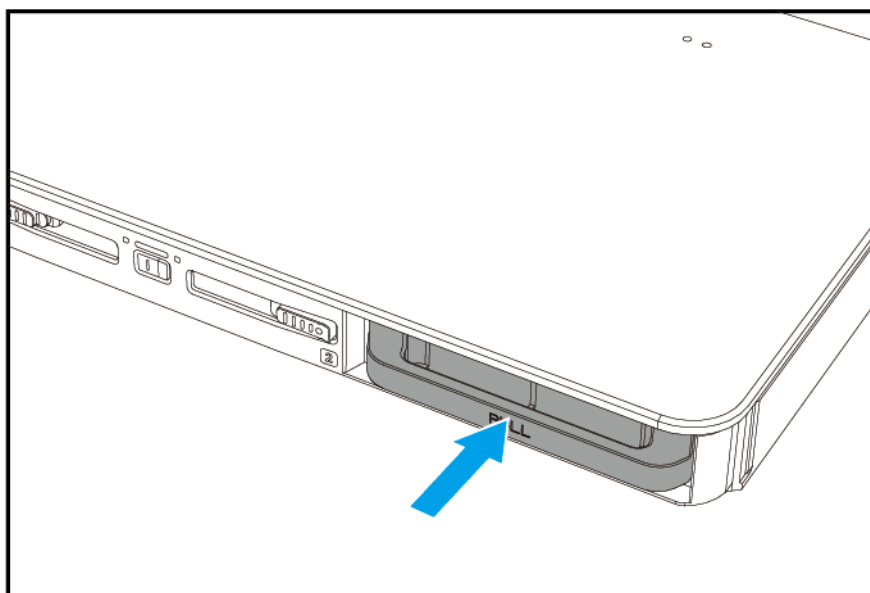
2. 关闭 NAS 电源。

3. 按压门锁的同时拉出硬盘托盘，取下该托盘。

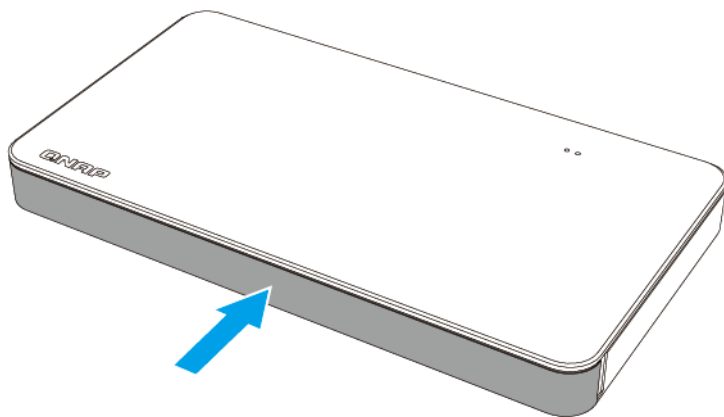


4. 将硬盘安装到托盘上。

- a. 将硬盘放在托盘上，使硬盘底部的孔与托盘底部的孔对齐。

b. 安装螺丝。**5. 将托盘插入硬盘架。****6. 启动 NAS 电源。**

7. 安装前盖。



安装 M.2 固态硬盘

警告

- 只有合格人员才能执行以下步骤。不遵守说明可能会导致重伤或死亡。
- 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。

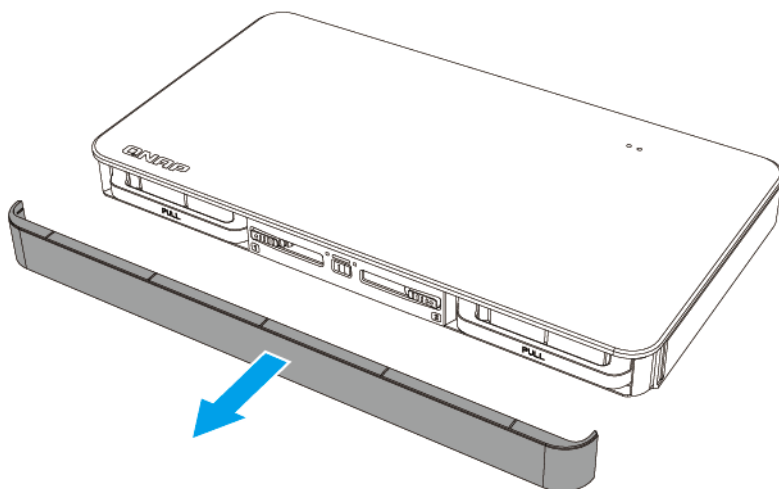


- **运动的其他组件：**使您的双手和身体其他部位远离正在运动的其他组件。

注意

- HS-453DX 有两个 M.2 SSD 插槽。有关兼容的 M.2 SSD 的列表，请转到 <https://www.qnap.com/compatibility>。
- QNAP 建议在 M.2 SSD 控制器上安装导热片，以提高散热效果并确保性能稳定。

1. 取下前盖。



2. 关闭 NAS 电源。

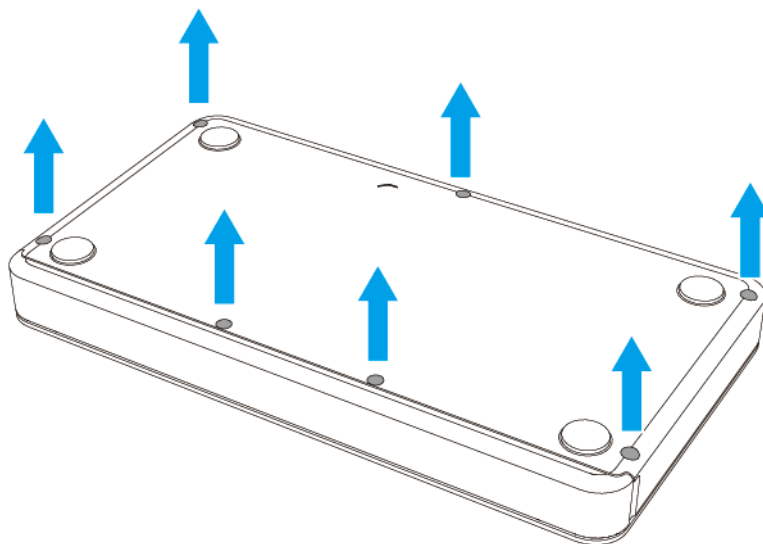
3. 从插座上拔下电源线。

4. 拔掉所有线缆和外接部件。

5. 取下顶盖。

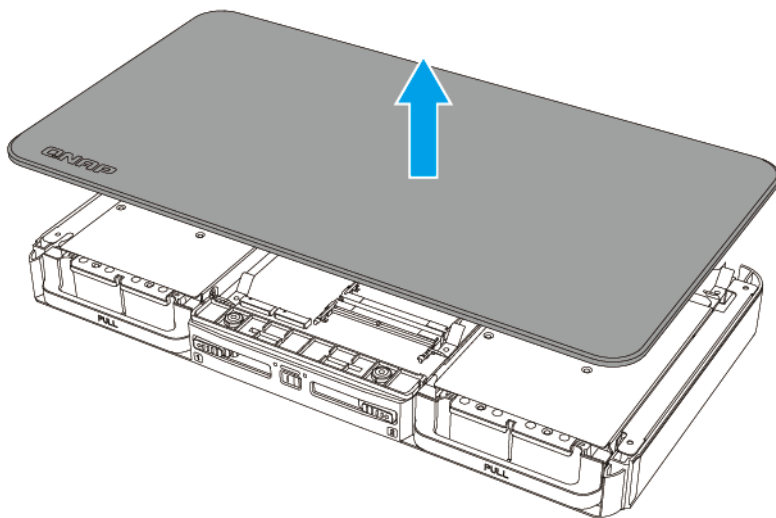
a. 将 NAS 倒置。

b. 取下螺丝。



c. 将 NAS 正常直立放置。

d. 从 NAS 上提起顶盖。



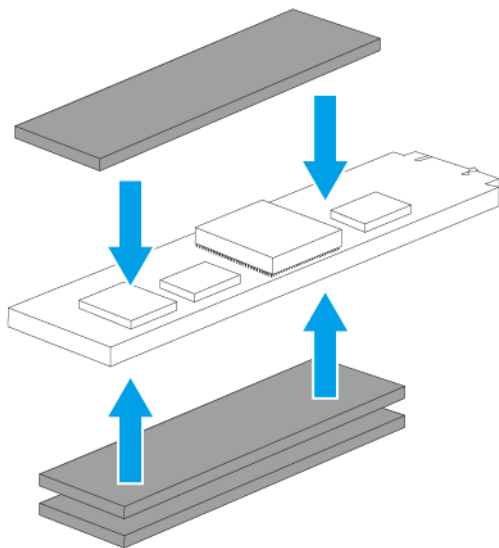
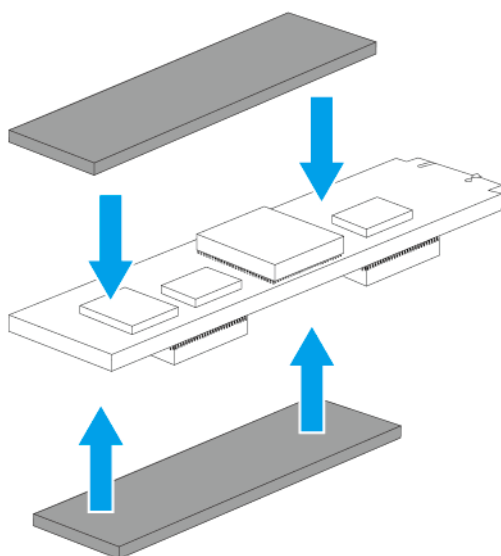
6. 在 M.2 SSD 上安装导热片。

a. 取下导热片的保护膜。



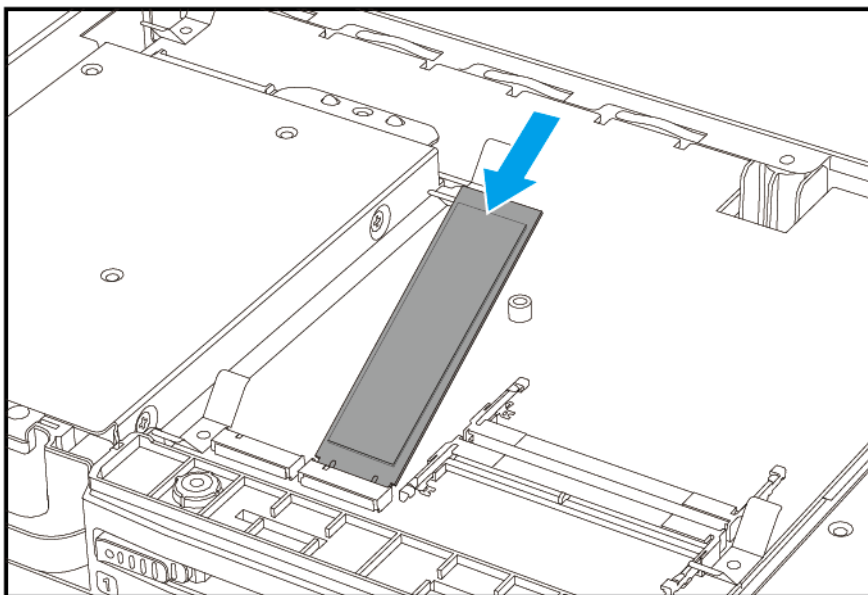
b. 将导热片贴到 M.2 SSD 上。**注意**

单面 M.2 SSD 的组件（如控制器、闪存集成电路）均只安装在上面一侧，双面 M.2 SSD 的组件则在两侧均有安装。

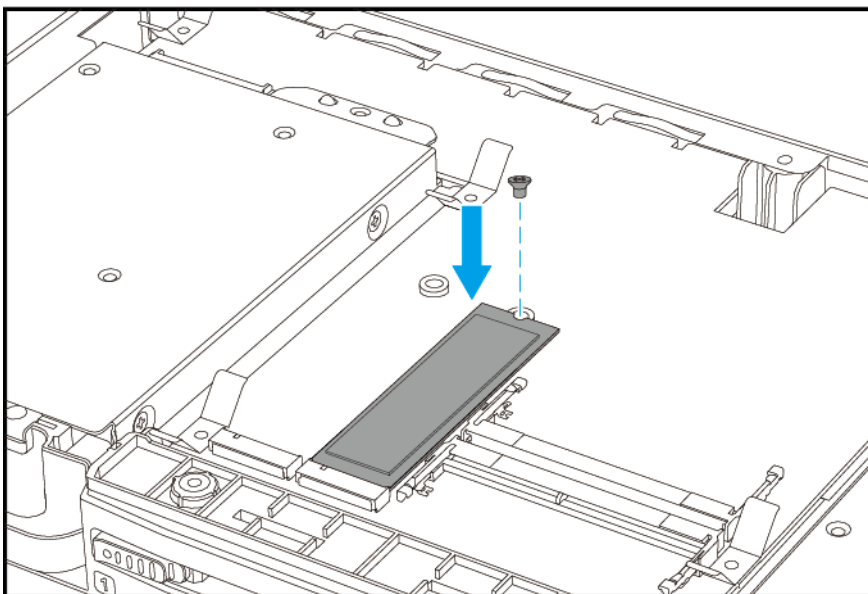
**单面 M.2 SSD****双面 M.2 SSD**

7. 安装 M.2 SSD。

a. 插入 M.2 SSD。

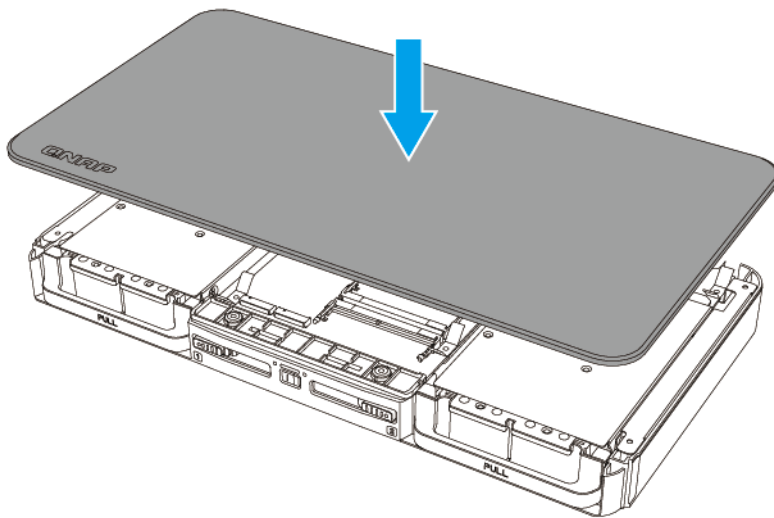


b. 安装螺丝。



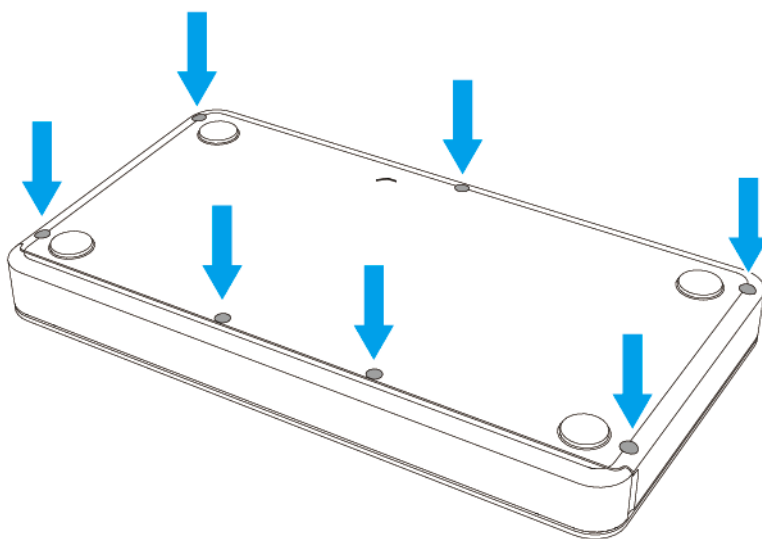
8. 安装顶盖。

- a. 将顶盖放在 NAS 上。



- b. 将 NAS 倒置。

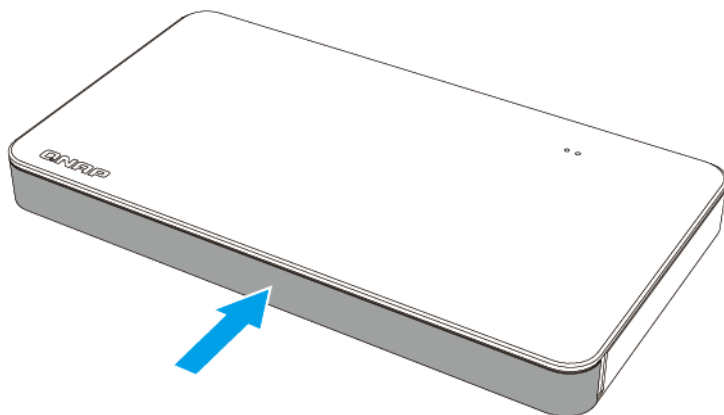
- c. 安装螺丝。



- d. 将 NAS 正常直立放置。

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

12. 安装前盖。



更换内存模块

HS-453DX 有两个内存插槽。您可以通过升级内存模块来增加 NAS 的内存容量。使用两个模块时，只能使用类型和容量均相同的 QNAP 模块，以保持系统性能和稳定性。可以从授权经销商处购买 QNAP 内存模块。

警告

- 只有合格人员才能执行以下步骤。不遵守说明可能会导致重伤或死亡。
- 请执行静电放电 (ESD) 规程，以避免组件损坏。

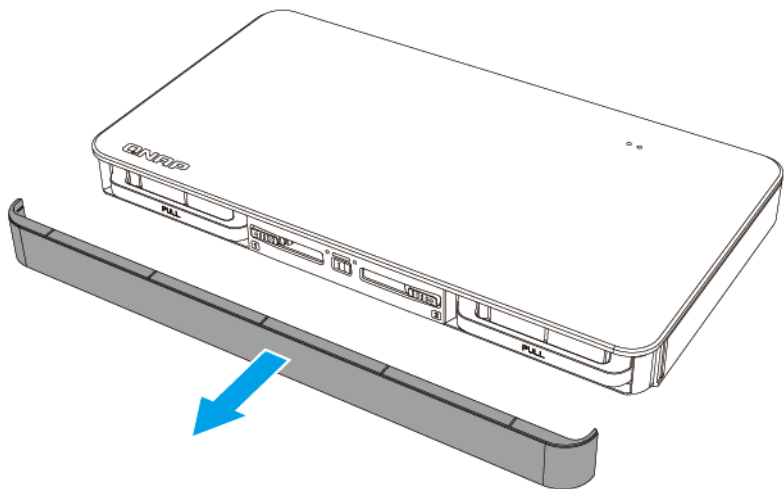


- **转动的风扇叶片：**使您的双手和身体其他部位远离正在转动的风扇叶片。



- **运动的其他组件：**使您的双手和身体其他部位远离正在运动的其他组件。

1. 取下前盖。



2. 关闭 NAS 电源。

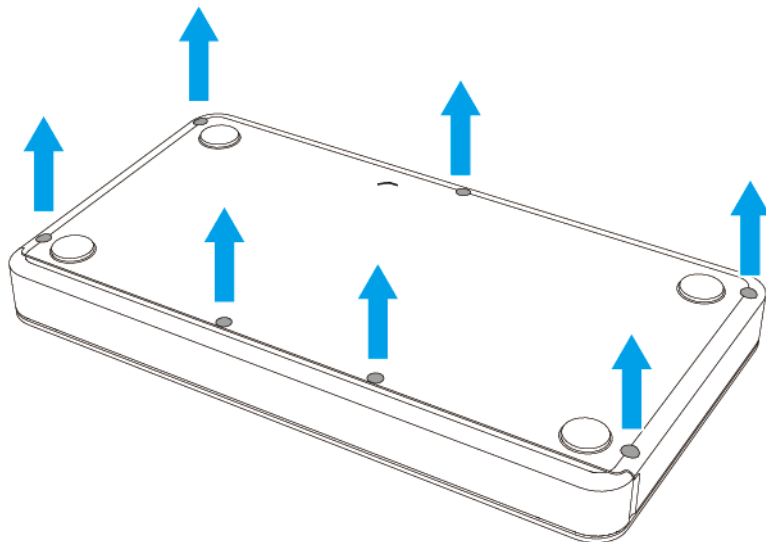
3. 从插座上拔下电源线。

4. 拔掉所有线缆和外接部件。

5. 取下顶盖。

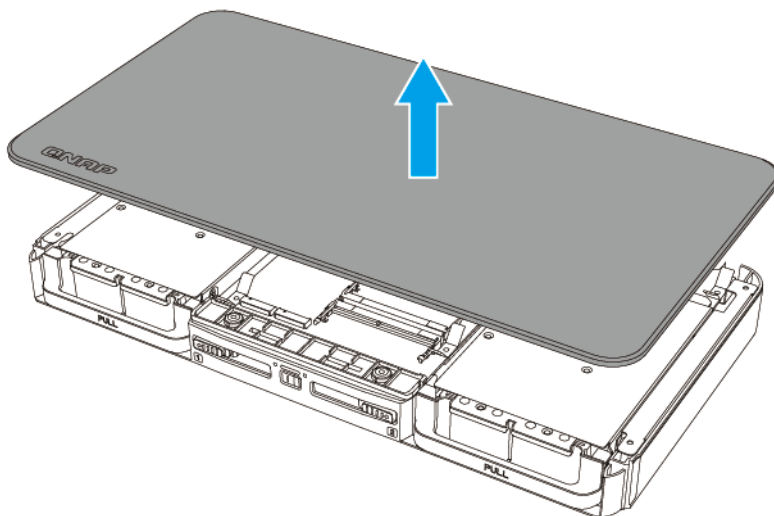
a. 将 NAS 倒置。

b. 取下螺丝。



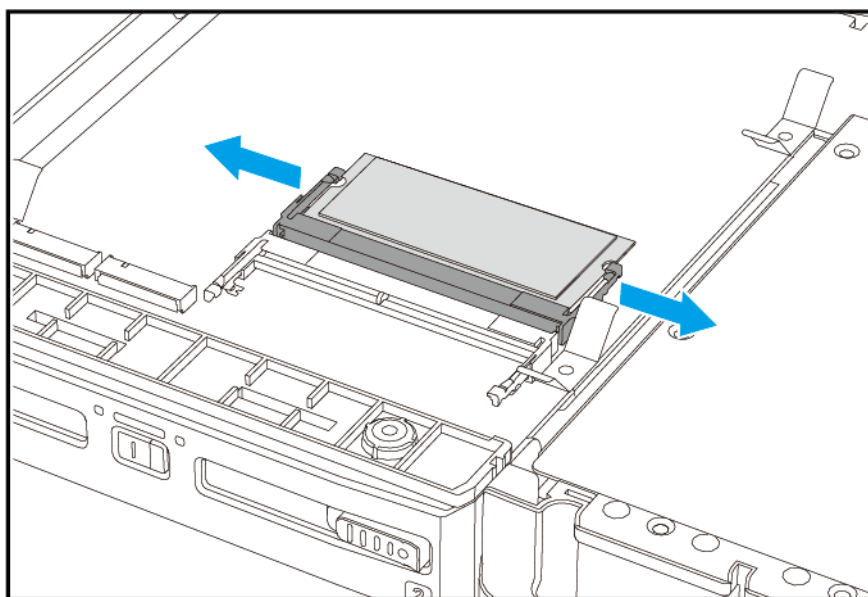
c. 将 NAS 正常直立放置。

- d. 从 NAS 上提起顶盖。



6. 取下现有模块。

- a. 同时向外推动固定夹以释放模块。

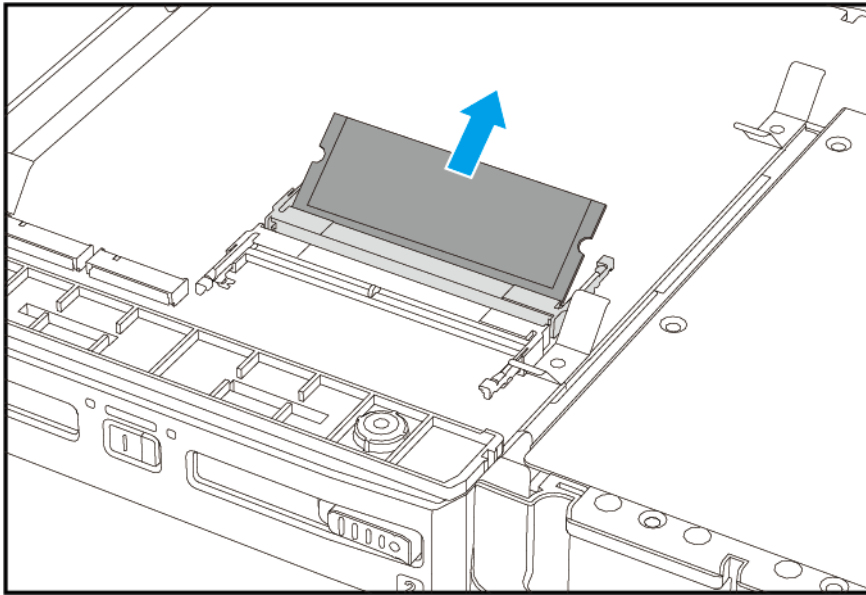


- b. 确认模块向上倾斜并已完全脱离插槽。

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，然后小心地将其从插槽中拔出。



警告

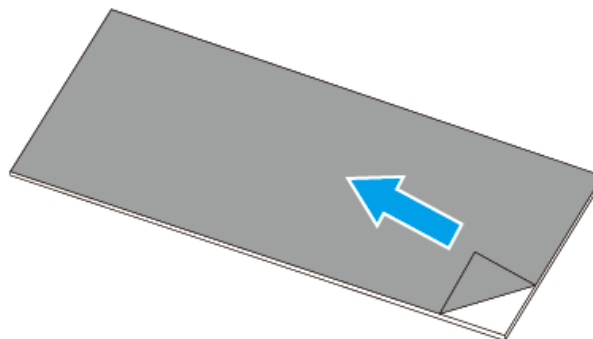
- 请勿触摸组件，特别是金属接头。
- 不要折弯模块。

7. 可选: 将导热片装到更换模块上。

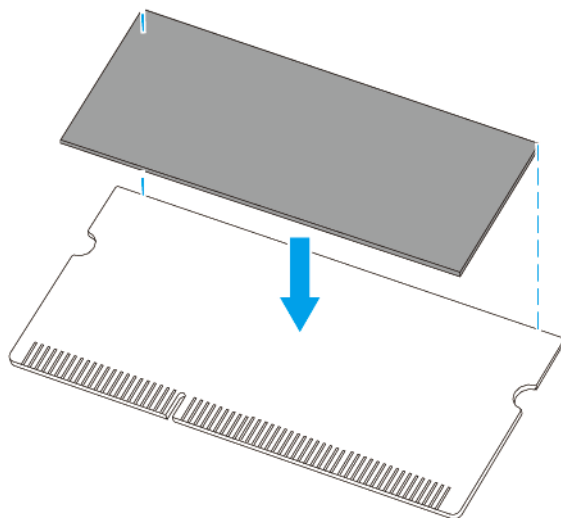
提示

QNAP 建议在内存模块上安装导热片，以提高散热效果并确保性能稳定。您可以在 shop.qnap.com 购买导热片。

- a. 取下导热片的保护膜。



- b. 将导热片贴到模块上。

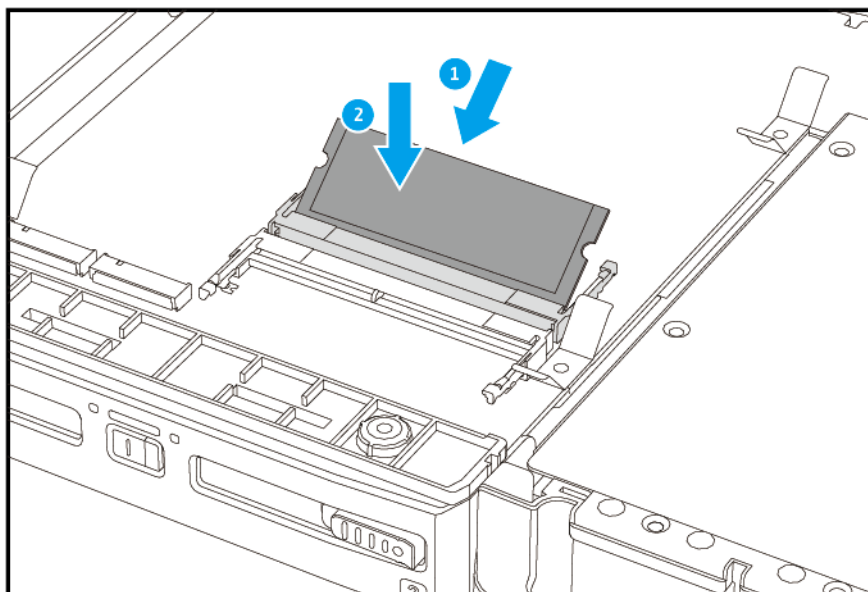


重要

将导热片贴到模块向上的一侧。

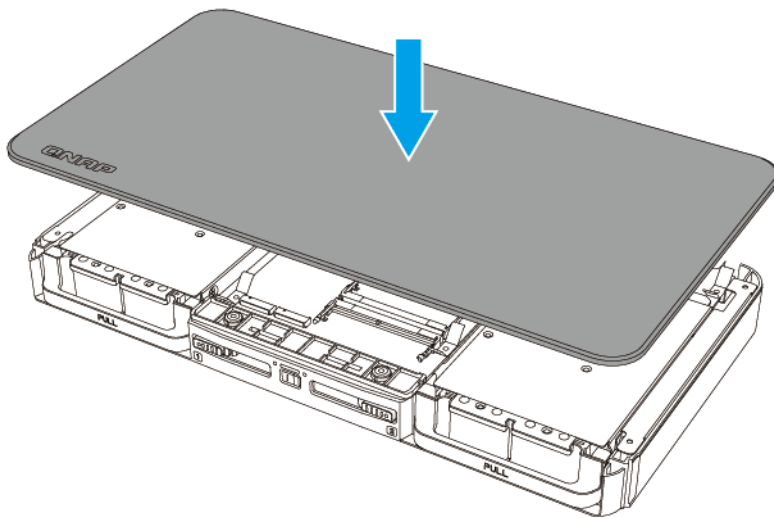
8. 安装新模块。

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



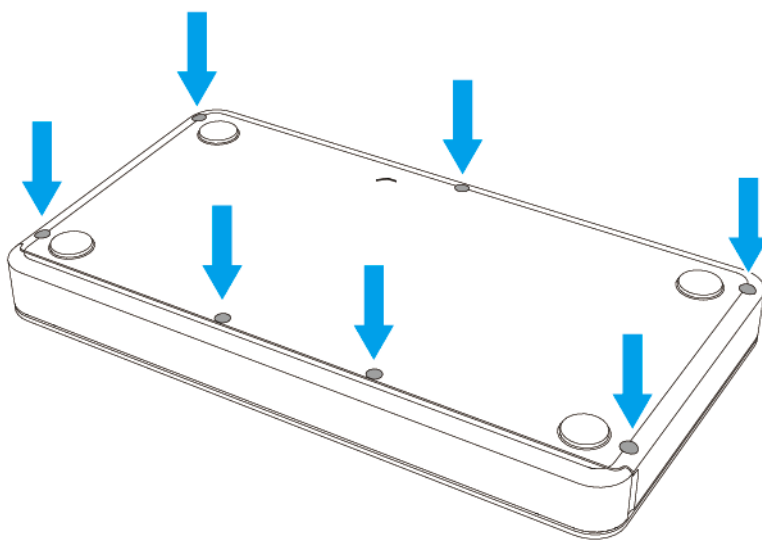
9. 安装顶盖。

- a. 将顶盖放在 NAS 上。



- b. 将 NAS 倒置。

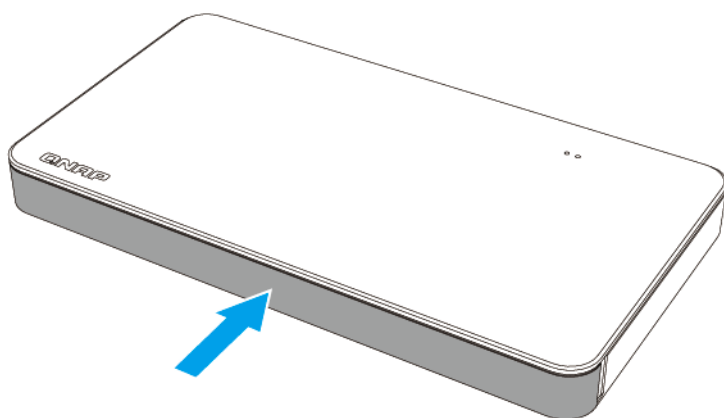
- c. 安装螺丝。



- d. 将 NAS 正常直立放置。

10. 连接所有线缆和外接部件。**11. 将电源线连接到插座。****12. 启动 NAS 电源。**

13. 安装前盖。



14. 确认 NAS 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。

集成电路导热片

HS-453DX 在 CPU、MOSFET 和 10 GbE 集成电路 (IC) 上预装了导热片。反复拆装 NAS 顶盖会使这些导热片损耗，需要您定期更换。

您可以在 shop.qnap.com 购买用于更换的导热片。

更换集成电路导热片

警告

- 只有合格人员才能执行以下步骤。不遵守说明可能会导致重伤或死亡。
- 请执行静电放电 (ESD) 规程，以避免组件损坏。

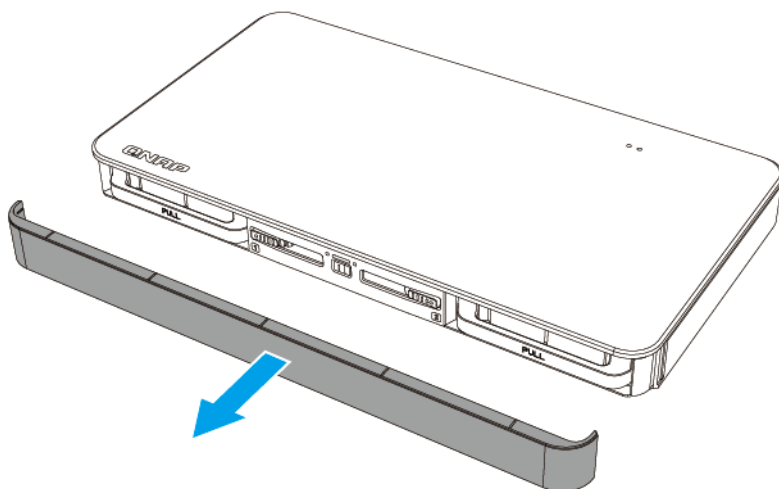


- **转动的风扇叶片：**使您的双手和身体其他部位远离正在转动的风扇叶片。



- **运动的其他组件：**使您的双手和身体其他部位远离正在运动的其他组件。

1. 取下前盖。



2. 关闭 NAS 电源。

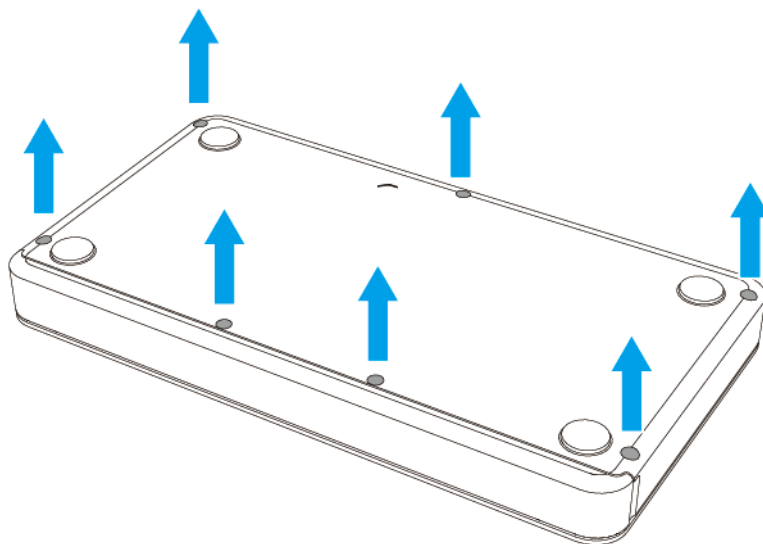
3. 从插座上拔下电源线。

4. 拔掉所有线缆和外接部件。

5. 取下顶盖。

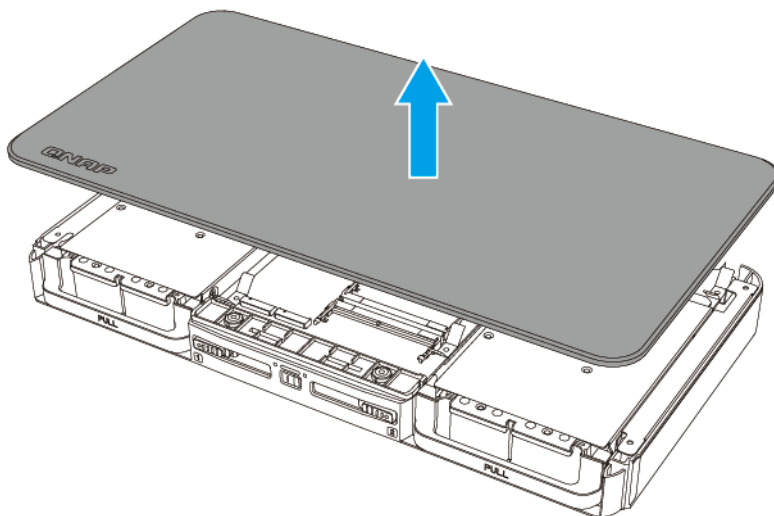
a. 将 NAS 倒置。

b. 取下螺丝。



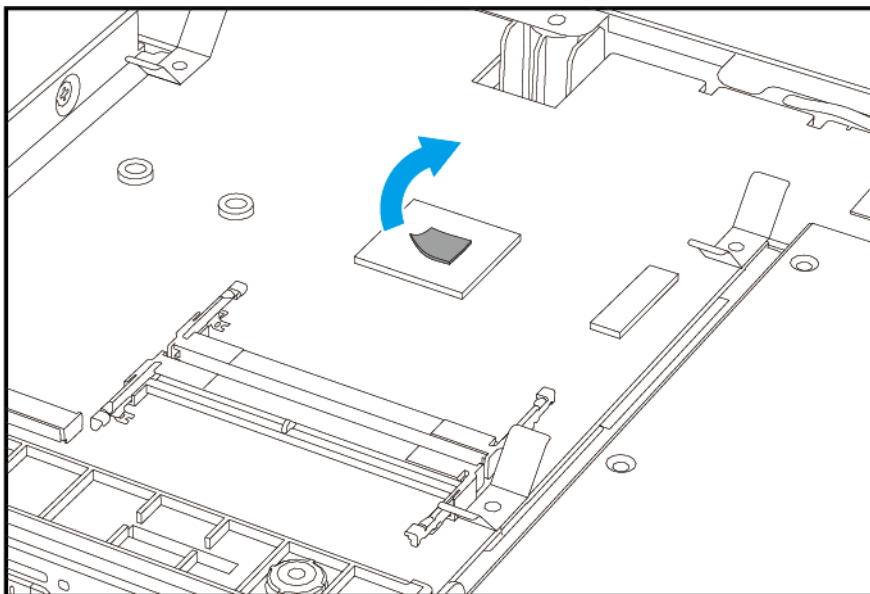
c. 将 NAS 正常直立放置。

- d. 从 NAS 上提起顶盖。

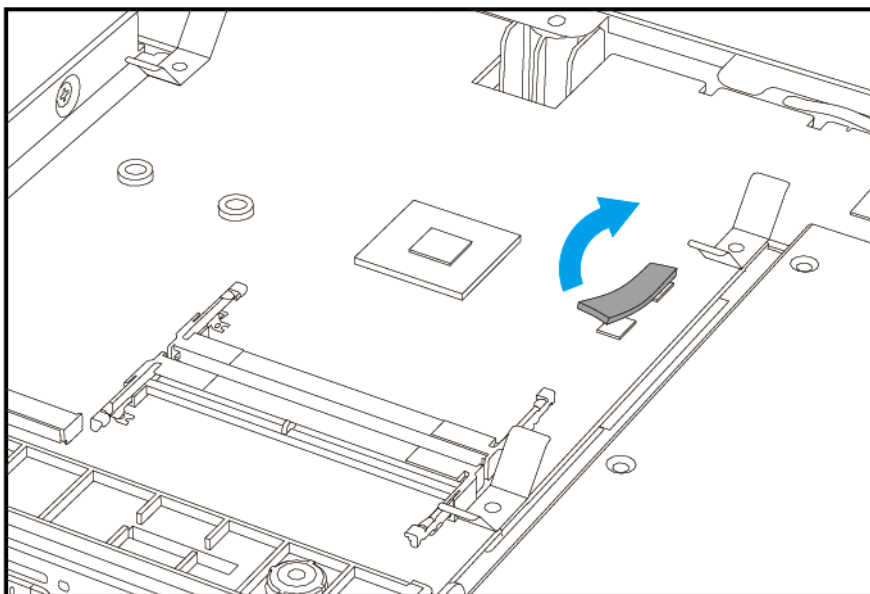


6. 找到系统主板上的集成电路。
有关详细信息，请参见[系统主板](#)。

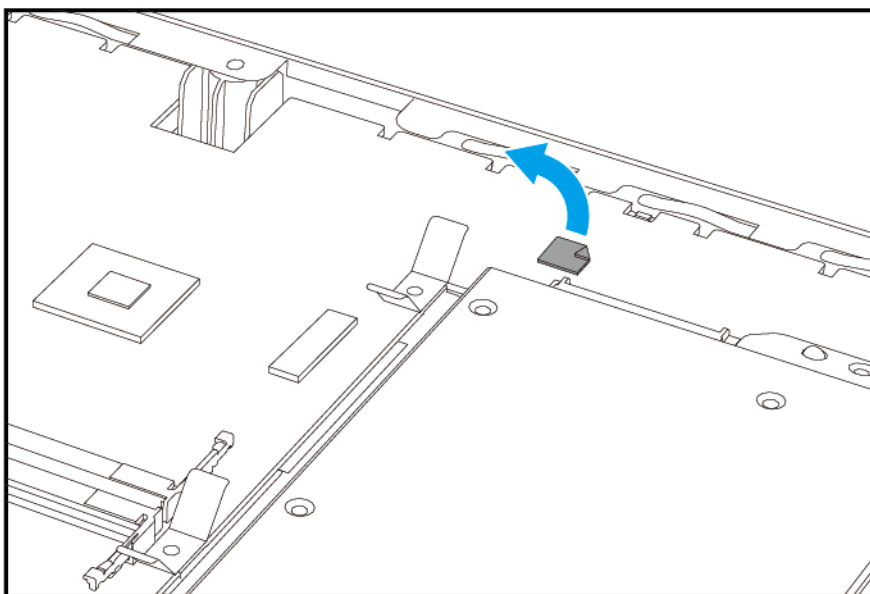
7. 从集成电路上取下原有的导热片。



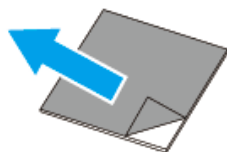
CPU



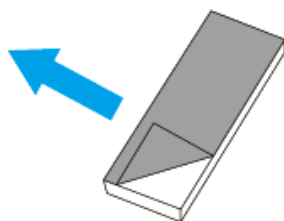
MOSFET 集成电路



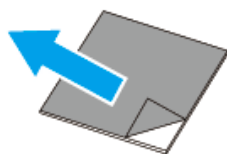
8. 取下导热片的保护膜。



CPU

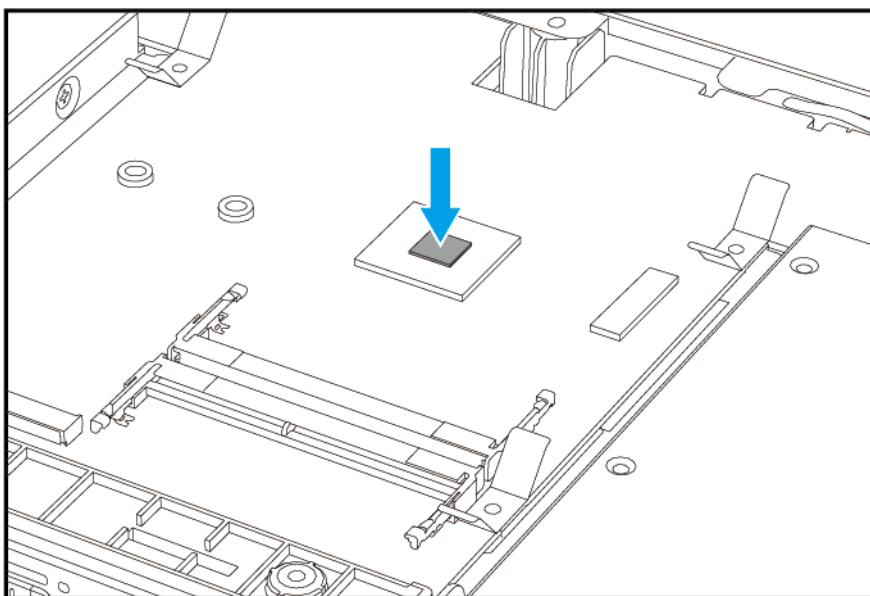


MOSFET 集成电路

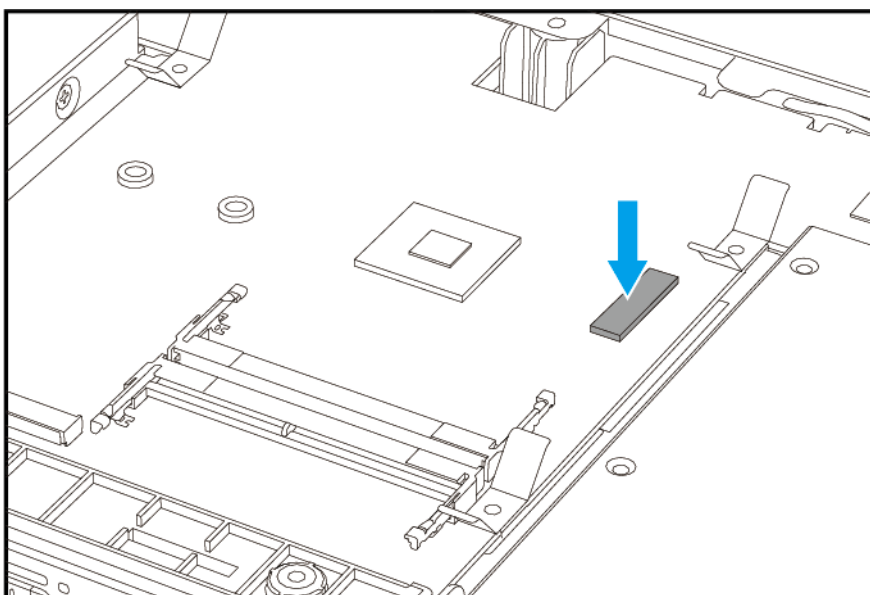


10 GbE 集成电路

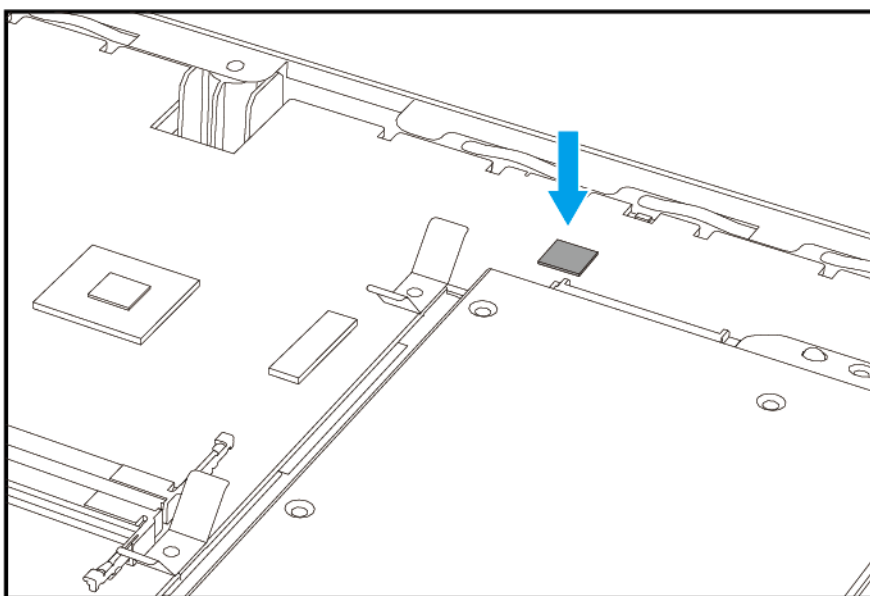
9. 将导热片贴到集成电路上。



CPU

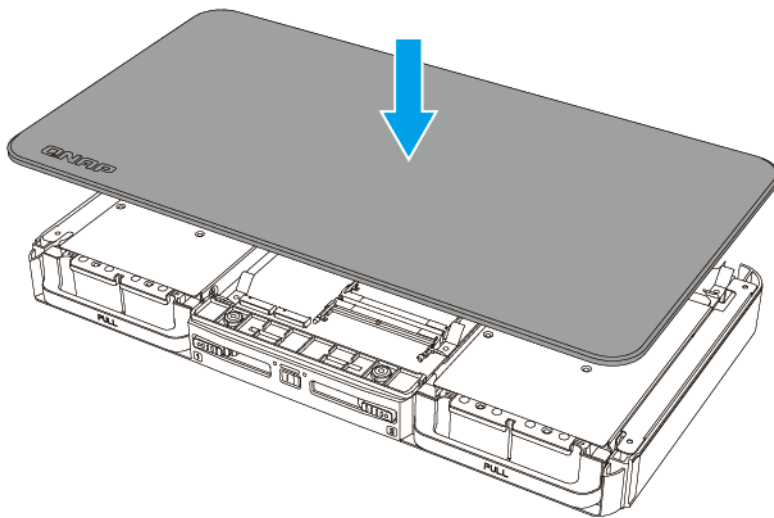


MOSFET 集成电路



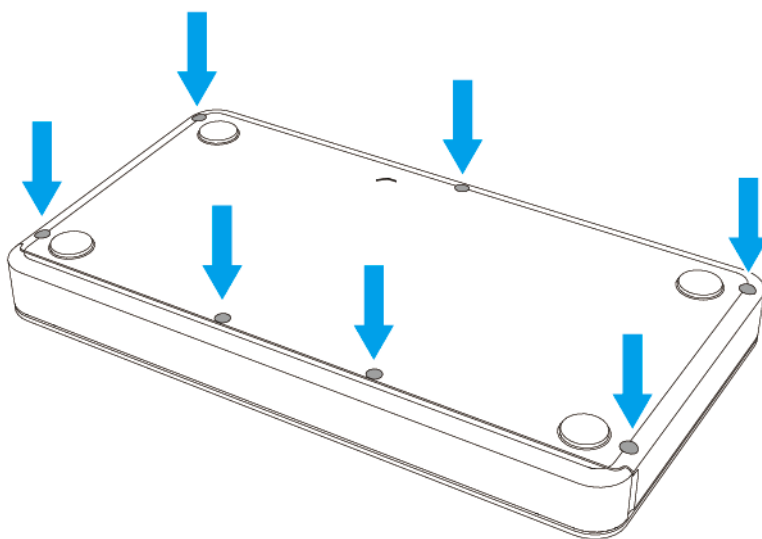
10. 安装顶盖。

- a. 将顶盖放在 NAS 上。



- b. 将 NAS 倒置。

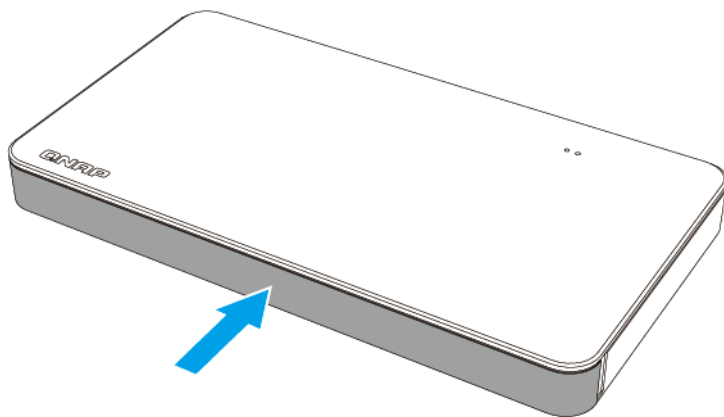
- c. 安装螺丝。



- d. 将 NAS 正常直立放置。

- 11. 连接所有线缆和外接部件。**
12. 将电源线连接到插座。
13. 启动 NAS 电源。

14. 安装前盖。



QTS 安装

HS-453DX 使用 QNAP QTS 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)	<p>如果 NAS 已连接到您的局域网，可以执行以下操作：</p> <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。 <p>有关详细信息，请参见使用 Qfinder Pro 安装 QTS。</p>	<ul style="list-style-type: none"> • 计算机 • 网线 • Qfinder Pro 安装程序
云安装	<p>如果 NAS 已连接到 Internet，可以执行以下操作：</p> <ul style="list-style-type: none"> • 扫描 NAS 上的二维码。 • 登录您的 myQNAPcloud 帐户。 • 使用 CloudLink 远程访问 NAS。 • 完成“智能安装指南”向导中的步骤。 <p>有关详细信息，请参见使用 Cloud Key 安装 QTS。</p>	<ul style="list-style-type: none"> • 计算机或移动设备 • 网线 • myQNAPcloud 帐户 • Cloud Key

方法	描述	要求
本地安装	<p>如果 NAS 支持 HDMI 输出，可以执行以下操作：</p> <ul style="list-style-type: none"> 将 NAS 连接到所需的硬件。 完成“智能安装指南”向导中的步骤。 <p>有关详细信息，请参见使用 HDMI 连接安装 QTS。</p>	<ul style="list-style-type: none"> 监视器 HDMI 线缆 USB 键盘或遥控器（仅部分型号提供）

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。

注意

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。
智能安装指南将在默认 Web 浏览器中打开。
5. 单击**启动智能安装指南**。
6. 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。
7. 单击**下一步**。
8. 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。

9. 单击**下一步**。
10. 选择**自动获取 IP 地址(DHCP)**。
11. 单击**下一步**。
12. 选择将用于访问 NAS 上共享文件夹的设备类型。

13. 单击下一步。

14. 选择稍后配置磁盘。

注意

有关配置磁盘的详细信息，请参见《QTS 用户指南》的“存储空间总管”一节。

15. 单击下一步。

16. 选择否。

注意

- 启用多媒体功能后，可以在“存储空间总管”中配置磁盘后安装多媒体应用程序。
- 有关在 QTS 上启用多媒体功能的详细信息，请参见《QTS 用户指南》的“系统管理”一节。

17. 单击下一步。

18. 检查设置。

19. 单击应用。

此时将出现确认消息。

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。

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 云端安装程序”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**。

注意

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。

注意

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。

注意

myQNAPcloud 设备名称用于远程访问 NAS。

7. 可选: 选择 **CloudLink**。

注意

- 使用 CloudLink，可以远程访问 NAS，而无需在路由器上配置端口转发。您可以通过登录 QTS 或使用移动应用来远程访问 NAS。
- 还可以通过在 NAS 上安装 CloudLink 应用来启用 CloudLink。

8. 单击**下一步**。

智能安装指南将在默认 Web 浏览器中打开。

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**。

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**。

14. 选择**自动获取 IP 地址(DHCP)**。

15. 单击**下一步**。

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**。
18. 选择**稍后配置磁盘**。

注意

有关配置磁盘的详细信息，请参见《QTS 用户指南》的“存储空间总管”一节。

19. 单击**下一步**。
20. 选择**否**。

注意

- 启用多媒体功能后，可以在“存储空间总管”中配置磁盘后安装多媒体应用程序。
- 有关在 QTS 上启用多媒体功能的详细信息，请参见《QTS 用户指南》的“系统管理”一节。

21. 单击**下一步**。
22. 检查设置。
23. 单击**应用**。
此时将出现确认消息。

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。

24. 单击**确认**。
QTS 即安装完毕。

使用 HDMI 连接安装 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. 将 HDMI 监视器连接到 NAS。
2. 将 USB 键盘连接到 NAS 或准备好 QNAP 红外遥控器（仅部分型号提供）。
3. 启动 NAS 电源。
此时会出现“智能安装指南”的**欢迎**屏幕。
4. 选择**启动智能安装指南**。
5. 选择**否，跳过此过程**。
启用多媒体功能后，可以在“存储空间总管”中配置磁盘后安装多媒体应用程序。
有关在 QTS 上启用多媒体功能的详细信息，请参见《QTS 用户指南》的“系统管理”一节。

6. 选择稍后配置。
有关配置磁盘的详细信息，请参见《QTS 用户指南》的“存储空间总管”一节。
7. 检查设置。
8. 单击下一步。
9. 检查设置。
10. 单击下一步。
此时会出现确认屏幕。

警告

单击下一步后，将先删除硬盘上的所有数据，然后再安装 QTS。

11. 单击下一步。
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。	NAS 开机。
关闭电源	按住此按钮 1.5 秒钟。	NAS 关机。
强制关机	按住此按钮 5 秒钟。	NAS 关闭。 重要 仅当 NAS 无响应时才能使用此方法。

重置按钮

重要

要保护您的设备免受暴力破解攻击，QNAP 建议在系统重置后禁用默认 admin 帐户。要禁用默认 admin 帐户，您必须先创建新管理员帐户，注销 admin 帐户，然后使用新帐户登录。

操作	用户操作	结果
基本系统重置	按住此按钮 3 秒钟。	<p>以下设置将重置为默认值：</p> <ul style="list-style-type: none"> • admin 帐户将自动启用。 • 系统管理员密码：有关默认密码的详细信息，请参见此常见问题。 • 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 • 如果启用端口中继（仅限多局域网型号），则端口中继模式将重置为“主动备份(故障转移)”。 • 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） • VLAN：禁用
高级系统重置	按住此按钮 15 秒钟。	<p>恢复默认出厂设置。</p> <ul style="list-style-type: none"> • 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 NAS 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 NAS 已连接到网络的情况。

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。 • NAS 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。

LED	状态	描述
系统状态	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。 • NAS 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）。 • 硬件自检错误
	闪烁红色，间隔 0.5 秒	NAS 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）。
	闪烁绿色，间隔 0.5 秒	<ul style="list-style-type: none"> • NAS 正在启动。 • NAS 未配置。 • 硬盘未格式化。
	绿色	NAS 已准备就绪。
	熄灭	所有硬盘都处于待机模式。
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	硬盘可供访问。

提示音警报

持续时间	频率	描述
短提示音 (0.5 秒)	1	<ul style="list-style-type: none"> • NAS 正在启动。 • NAS 正在关闭 (软件关闭)。 • 用户已按下“重置”按钮。 • 操作系统已更新。
	3	用户尝试从前面的 USB 端口将 NAS 数据复制到外部存储设备，但无法复制数据。
长提示音 (1.5 秒)	3 (每 5 分钟)	系统风扇故障。
	2	<ul style="list-style-type: none"> • 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。 • 用户已启动硬盘重建过程。 • 插入或抽出硬盘。
	1	<ul style="list-style-type: none"> • NAS 已通过强制关闭关机 (硬件关闭)。 • NAS 已成功开机并准备就绪。

5. 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 1：一个成员硬盘有故障
 - RAID 5：一个成员硬盘有故障
 - RAID 6：一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 NAS 中取下故障硬盘。
 6. 等待 20 秒或 NAS 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 > 存储/快照**
 11. 找到包含新硬盘的卷，然后确认状态为正在重建。

支持和其他资源

QNAP 提供了以下资源：

资源	URL
文档	http://docs.qnap.com
服务台	http://helpdesk.qnap.com
下载	http://download.qnap.com
社区论坛	http://forum.qnap.com

6. 术语表

CloudKey

分配给每个 NAS 设备的唯一 8 位数代码

CloudLink

可用于通过 Internet 访问 NAS，而且不必配置复杂的端口转发设置

myQNAPcloud

提供各种远程访问服务，如 DDNS 和 CloudLink

myQNAPcloud ID

用于注册 myQNAPcloud 帐户的电子邮件地址

Qfinder Pro

使您能够定位和访问局域网中的 QNAP NAS 设备

QTS

QNAP NAS 操作系统

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Version 3, 29 June 2007

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The “source code” for a work means the preferred form of the work for making modifications to it. “Object code” means any non-source form of a work.

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The “System Libraries” of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A “Major Component”, in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The “Corresponding Source” for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work’s System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example,

Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

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You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

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You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

- 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.

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The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

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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