



# ThinkSystem ST650 V2 Backplane/Backplate Cable Routing Guide



**Machine Types:** 7Z74 and 7Z75

**Note**

Before using this information and the product it supports, be sure to read and understand the safety information and the safety instructions, which are available at:

[https://pubs.lenovo.com/safety\\_documentation/](https://pubs.lenovo.com/safety_documentation/)

In addition, ensure that you are familiar with the terms and conditions of the Lenovo warranty for your server, which can be found at:

<http://datacentersupport.lenovo.com/warrantylookup>

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## Safety

Before installing this product, read the Safety Information.

قبل تركيب هذا المنتج، يجب قراءة الملاحظات الأمنية

Antes de instalar este produto, leia as Informações de Segurança.

在安装本产品之前，请仔细阅读 Safety Information（安全信息）。

安裝本產品之前，請先閱讀「安全資訊」。

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Před instalací tohoto produktu si přečtěte příručku bezpečnostních instrukcí.

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Ennen kuin asennat tämän tuotteen, lue turvaohjeet kohdasta Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφαλείας (safety information).

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

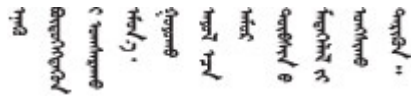
A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza.

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.



Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Antes de instalar este produto, leia as Informações sobre Segurança.

Перед установкой продукта прочтите инструкции по технике безопасности.

Pred inštaláciou tohto zariadenia si pečítajte Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Antes de instalar este producto, lea la información de seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

ཐོན་ཇས་འདི་བདེ་སྤྱོད་མ་བྱས་གོང་། སྐྱར་གྱི་ཡིད་གཟབ་  
བྱ་འདྲ་མིན་ཡོད་པའི་འོད་ཟེར་བལྟ་དགོས།

Bu ürünü kurmadan önce güvenlik bilgilerini okuyun.

مەزكۇر مەھسۇلاتنى ئورنىتىشتىن بۇرۇن بىخەتەرلىك ئۇچۇرلىرىنى ئوقۇپ چىقىڭ.

Youq mwngz yungh canjbinj neix gaxgonq, itdingh aeu doeg aen  
canjbinj soengq cungj vahgangj ancien siusik.

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## Safety inspection checklist

Use the information in this section to identify potentially unsafe conditions with your server. As each machine was designed and built, required safety items were installed to protect users and service technicians from injury.

### Notes:

1. The product is not suitable for use at visual display workplaces according to §2 of the Workplace Regulations.
2. The set-up of the server is made in the server room only.

### CAUTION:

**This equipment must be installed or serviced by trained personnel, as defined by the NEC, IEC 62368-1 & IEC 60950-1, the standard for Safety of Electronic Equipment within the Field of Audio/Video, Information Technology and Communication Technology. Lenovo assumes you are qualified in the servicing of equipment and trained in recognizing hazards energy levels in products. Access to the equipment is by the use of a tool, lock and key, or other means of security, and is controlled by the authority responsible for the location.**

**Important:** Electrical grounding of the server is required for operator safety and correct system function. Proper grounding of the electrical outlet can be verified by a certified electrician.

Use the following checklist to verify that there are no potentially unsafe conditions:

1. Make sure that the power is off and the power cord is disconnected.
2. Check the power cord.
  - Make sure that the third-wire ground connector is in good condition. Use a meter to measure third-wire ground continuity for 0.1 ohm or less between the external ground pin and the frame ground.
  - Make sure that the power cord is the correct type.

To view the power cords that are available for the server:

- a. Go to:

<http://dcsc.lenovo.com/#/>

- b. Click **Preconfigured Model** or **Configure to order**.
- c. Enter the machine type and model for your server to display the configurator page.
- d. Click **Power → Power Cables** to see all line cords.
  - Make sure that the insulation is not frayed or worn.
3. Check for any obvious non-Lenovo alterations. Use good judgment as to the safety of any non-Lenovo alterations.
4. Check inside the server for any obvious unsafe conditions, such as metal filings, contamination, water or other liquid, or signs of fire or smoke damage.
5. Check for worn, frayed, or pinched cables.
6. Make sure that the power-supply cover fasteners (screws or rivets) have not been removed or tampered with.





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# Introduction

This guide contains various configurations for different server models. If you need to print this document, consider only printing pages containing the configuration for your server system.

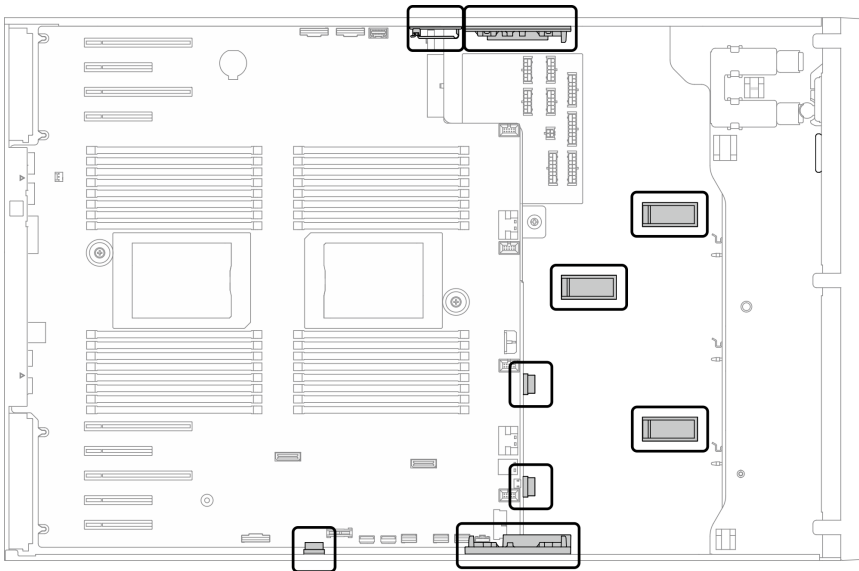
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## Internal cable routing

Some of the components in the server have internal cables and cable connectors.

To connect cables, observe the following guidelines:

- Turn off the server before you connect or disconnect any internal cables.
- See the documentation that comes with any external devices for additional cabling instructions. It might be easier for you to route cables before you connect the devices to the server.
- Cable identifiers of some cables are printed on the cables that come with the server and optional devices. Use these identifiers to connect the cables to the correct connectors.
- Ensure that the cable is not pinched and does not cover any connectors or obstruct any components on the system board.
- Ensure that the relevant cables pass through the cable clips and guides.



*Figure 1. Cable clips and guides on 2.5-inch chassis*

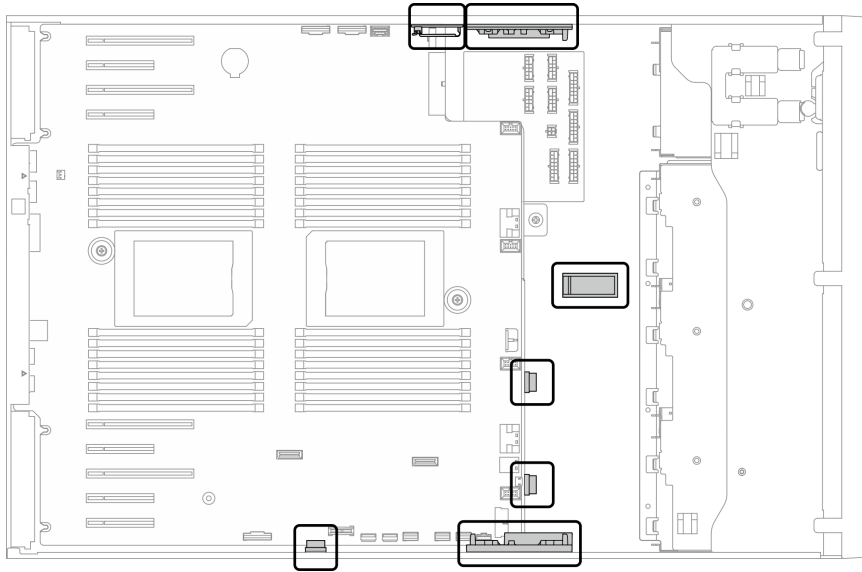
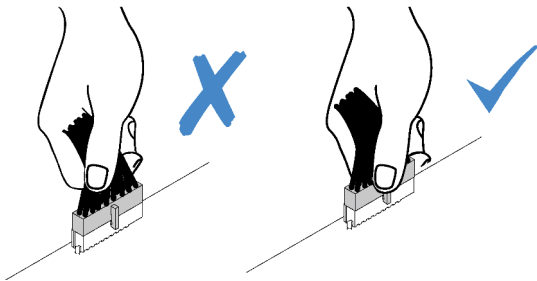


Figure 2. Cable clips and guides on 3.5-inch chassis

**Note:** Disengage all latches, release tabs, or locks on cable connectors when you disconnect cables from the system board. Failing to release them before removing the cables will damage the cable sockets on the system board, which are fragile. Any damage to the cable sockets might require replacing the system board.



# Chapter 1. 3.5-inch simple-swap drive backplate cable routing

Use the section to understand the cable routing for the 3.5-inch simple-swap drive backplate.

## Notes:

- Connections between connectors; **1** ↔ **1**, **2** ↔ **2**, **3** ↔ **3**, ... **n** ↔ **n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.

## Backplate 1

Table 1. Cable connection for backplate 1

From	To
<b>1</b> Backplate: Power cable	Power distribution board: BP 1 power connector
<b>2</b> Backplate: Signal cable	System board: SATA 0-3 connector

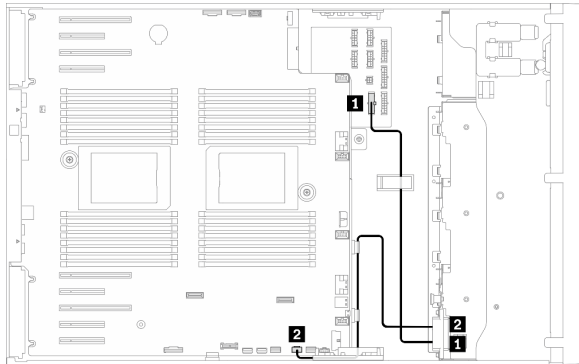


Figure 3. Cable routing for backplate 1

## Backplate 2

Table 2. Cable connection for backplate 2

From	To
<b>1</b> Backplate: Power cable	Power distribution board: BP 2 power connector
<b>2</b> Backplate: Signal cable	System board: SATA 4-7 connector

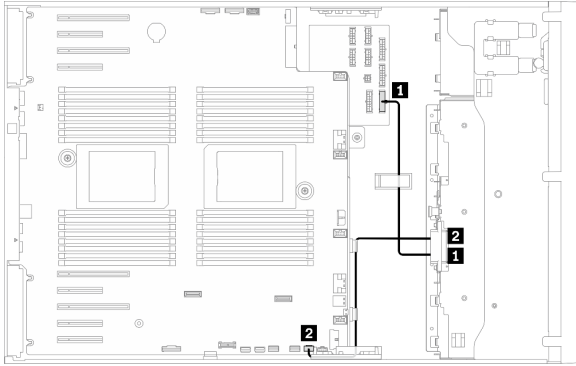


Figure 4. Cable routing for backplate 2

## Backplate 3

Table 3. Cable connection for backplate 3

From	To
<b>1</b> Backplate: Power cable	Power distribution board: BP 3 power connector
<b>2</b> Backplate: Signal cable	System board: SATA 8-11 connector

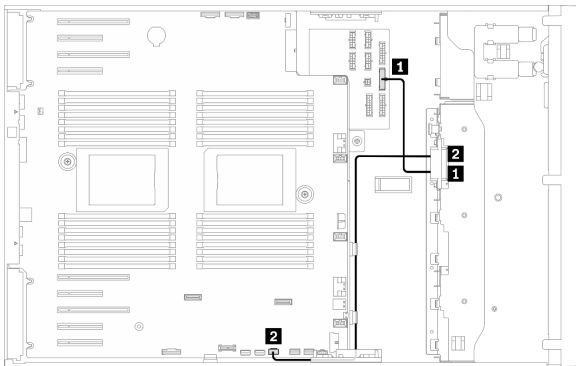


Figure 5. Cable routing for backplate 3

## Chapter 2. 3.5-inch hot-swap drive backplane cable routing

Use the section to understand the cable routing for 3.5-inch hot-swap drive backplane.

### Backplane cable list

Use this section to identify each of the cables that are used in routing the 3.5-inch hot-swap drive backplane for your server.

Table 4. 3.5-inch backplane cable list

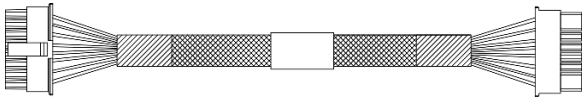
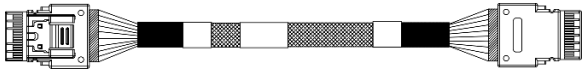
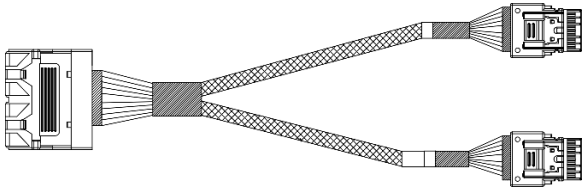
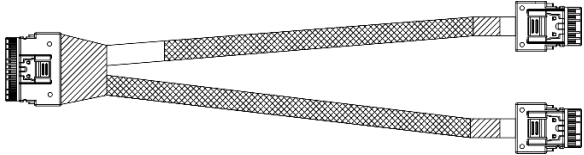
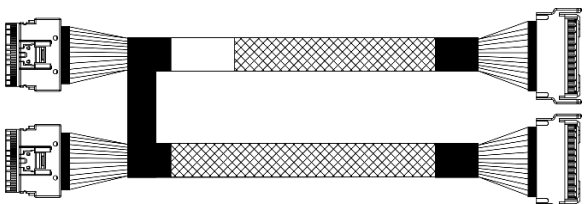
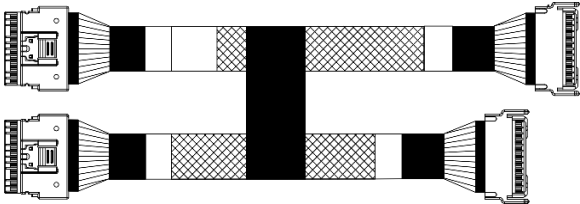
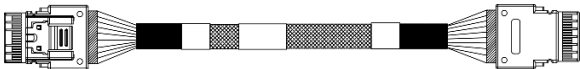
Cable	Description
<p>3.5-inch backplane power cable</p> 	<ul style="list-style-type: none"> <li>• Backplane 1 to PDB: 400 mm.</li> <li>• Backplane 2/3 to PDB: 300 mm.</li> <li>• Backplane 4 to PDB: 160 mm.</li> </ul>
<p>SlimSAS x4 to SlimSAS x4 cable</p> 	<p>Backplane 1/2/3 to SATA port on system board: 540 mm</p>
<p>Mini-SAS x4*2 to SlimSAS x4*2 cable</p> 	<ul style="list-style-type: none"> <li>• Backplane 1/2 to 8i RAID/HBA Gen 3 or 16i RAID/HBA Gen 3: 590 mm/590 mm.</li> <li>• Backplane 3/4 to 8i RAID/HBA Gen 3 or 16i RAID/HBA Gen 3: 840 mm/840 mm.</li> </ul>
<p>SlimSAS x8 to SlimSAS x4*2 cable</p> 	<ul style="list-style-type: none"> <li>• Backplane 1/2 to 8i RAID/HBA Gen 4 or 16i RAID/HBA Gen 4: 590 mm/590 mm.</li> <li>• Backplane 3/4 to 8i RAID/HBA Gen 4 or 16i RAID/HBA Gen 4: 840 mm/840 mm.</li> </ul>
<p>SlimSAS x8 to MCIO x8 cable pair</p> 	<p>Backplane 1/2 to NVMe retimer: 700 mm/700 mm.</p>

Table 4. 3.5-inch backplane cable list (continued)

Cable	Description
<p>SlimSAS x8 to MCIO x8 cable pair</p>  <p>The diagram shows two cables side-by-side. Each cable has a SlimSAS x8 connector on the left and an MCIO x8 connector on the right. The cables are color-coded with black, white, and cross-hatched sections.</p>	<ul style="list-style-type: none"> <li>• Backplane 1/2 to PCIe port on system board: 820 mm/ 780 mm.</li> <li>• Backplane 3/4 to PCIe port on system board: 325 mm/ 160 mm.</li> </ul>
<p>SlimSAS x4 to SlimSAS x4 cable</p>  <p>The diagram shows a single cable with a SlimSAS x4 connector on the left and another SlimSAS x4 connector on the right. The cable has a central black section and cross-hatched sections on either side.</p>	<ul style="list-style-type: none"> <li>• Backplane 1/2 to CFF 16i RAID/HBA Gen 4: 260 mm.</li> <li>• Backplane 3/4 to CFF 16i RAID/HBA Gen 4: 720 mm.</li> </ul>

## Power cable routing

Use the section to understand the power cable routing for 3.5-inch hot-swap drive backplane.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.

From	To	Cable
<b>1</b> Backplane 1: Power connector	Power distribution board: BP 1 power connector	3.5-inch backplane power (400 mm)
<b>2</b> Backplane 2: Power connector	Power distribution board: BP 2 power connector	3.5-inch backplane power (300 mm)
<b>3</b> Backplane 3: Power connector	Power distribution board: BP 3 power connector	3.5-inch backplane power (300 mm)
<b>4</b> Backplane 4: Power connector	Power distribution board: BP 4 power connector	3.5-inch backplane power (160 mm)

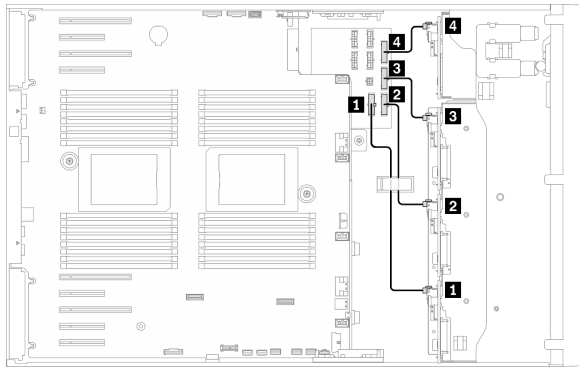


Figure 6. Power cable routing to PDB

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## Signal cable routing

Use the section to understand the signal cable routing for 3.5-inch hot-swap drive backplane.

- [“1 x SAS/SATA backplane” on page 7](#)
- [“2 x SAS/SATA backplanes” on page 13](#)
- [“3 x SAS/SATA backplanes” on page 19](#)
- [“4 x SAS/SATA backplanes” on page 24](#)
- [“1 x SAS/SATA + 1 x NVMe backplane” on page 29](#)
- [“1 x SAS/SATA + 2 x NVMe backplanes” on page 38](#)
- [“2 x SAS/SATA + 1 x NVMe backplane” on page 55](#)
- [“2 x SAS/SATA + 2 x NVMe backplanes” on page 66](#)
- [“1 x SAS/SATA + 1 x AnyBay backplane” on page 87](#)
- [“1 x SAS/SATA + 2 x AnyBay backplanes” on page 96](#)
- [“2 x SAS/SATA + 1 x AnyBay backplane” on page 113](#)
- [“2 x SAS/SATA + 2 x AnyBay backplanes” on page 124](#)



## 1 x SAS/SATA backplane

This section lists the required components for server models with 1 x SAS/SATA 3.5-inch hot-swap backplane.

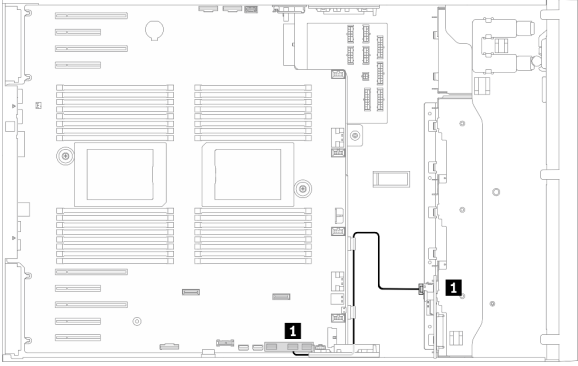
### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard SATA” on page 8](#)
- [“1 x 8i RAID/HBA” on page 9](#)
- [“1 x 16i RAID/HBA” on page 10](#)
- [“1 x 24i RAID/HBA” on page 11](#)
- [“1 x CFF RAID/HBA” on page 12](#)

## Onboard SATA

SAS/SATA cable routing		
 A technical diagram of a server chassis showing the internal layout. Two cables, labeled with callouts 1 and 2, are shown routing from the backplane area towards the system board. Callout 1 is located near the bottom left, and callout 2 is near the bottom right. The diagram includes various components like drive bays, cooling fans, and the system board area.		
<i>Figure 7. SAS/SATA cable routing to system board</i>		
From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)

## 1 x 8i RAID/HBA

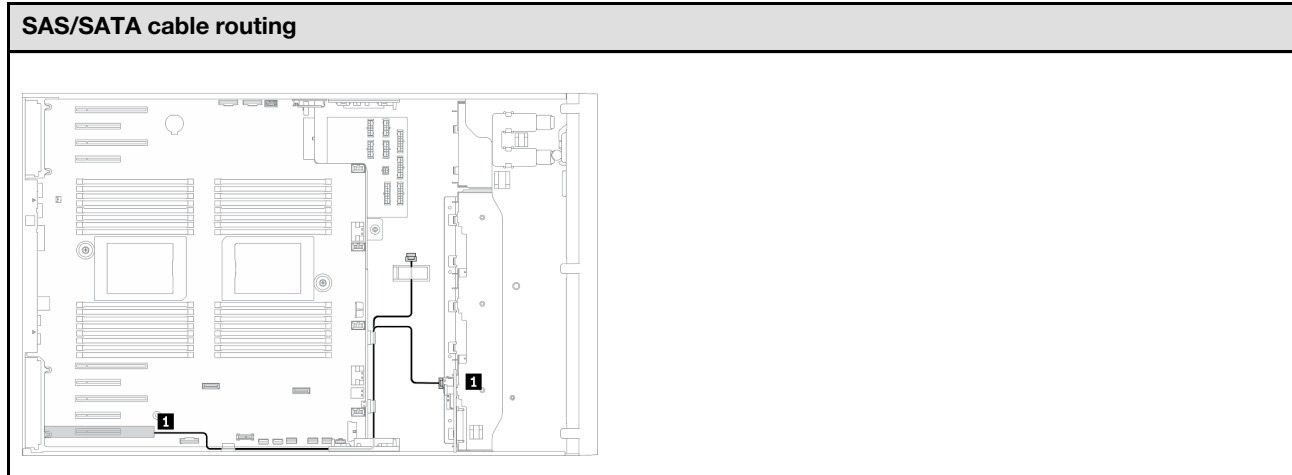


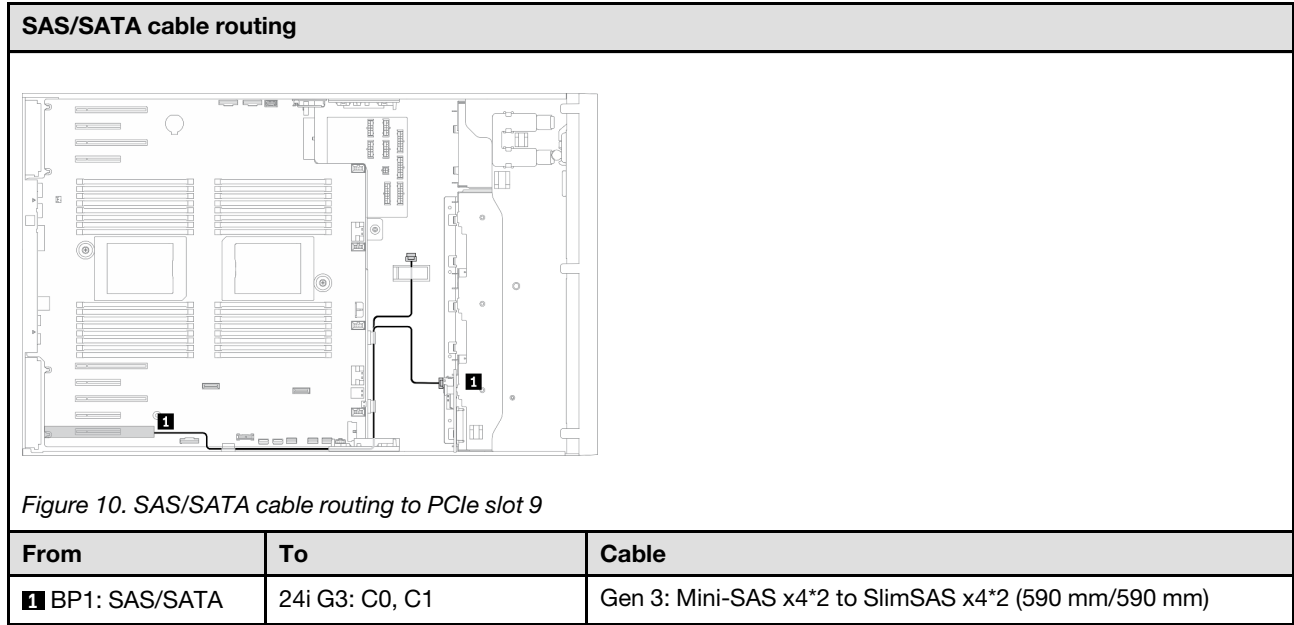
Figure 8. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>

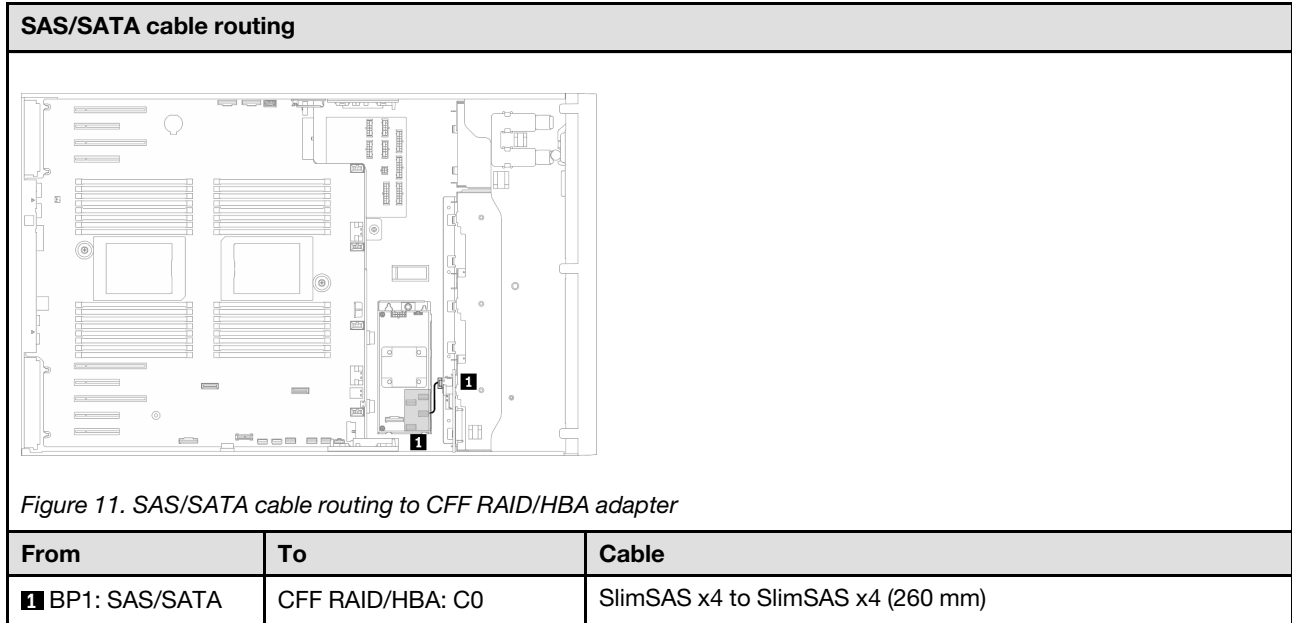
## 1 x 16i RAID/HBA

SAS/SATA cable routing		
<p>Figure 9. SAS/SATA cable routing to PCIe slot 9</p>		
From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>

## 1 x 24i RAID/HBA



## 1 x CFF RAID/HBA



## 2 x SAS/SATA backplanes

This section lists the required components for server models with 2 x SAS/SATA 3.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard SATA” on page 14](#)
- [“1 x 8i RAID/HBA” on page 15](#)
- [“1 x 16i RAID/HBA” on page 16](#)
- [“1 x 24i RAID/HBA” on page 17](#)
- [“1 x CFF RAID/HBA” on page 18](#)

## Onboard SATA

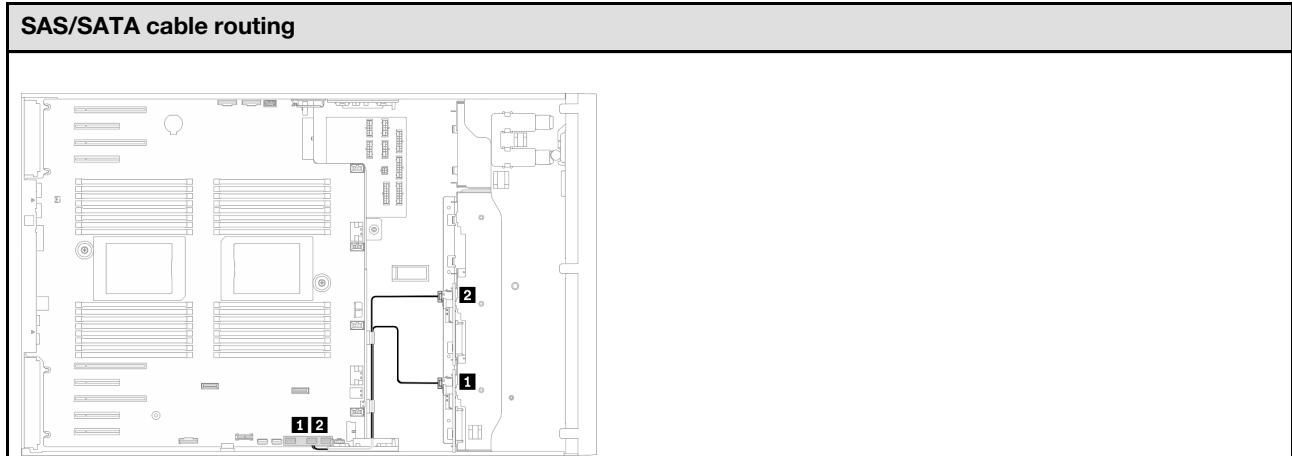


Figure 12. SAS/SATA cable routing to system board

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>2</b> BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)



## 1 x 8i RAID/HBA

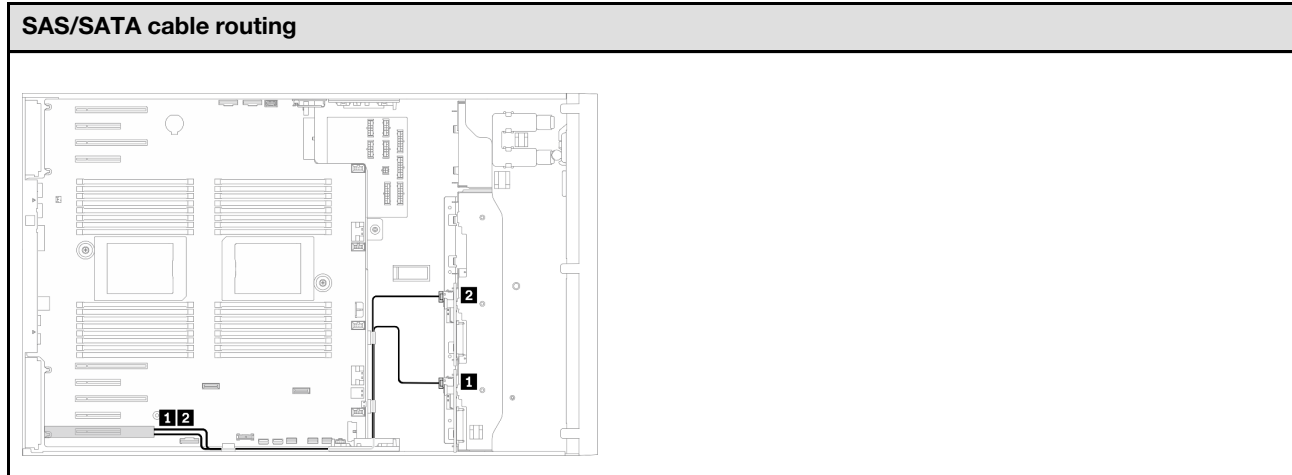
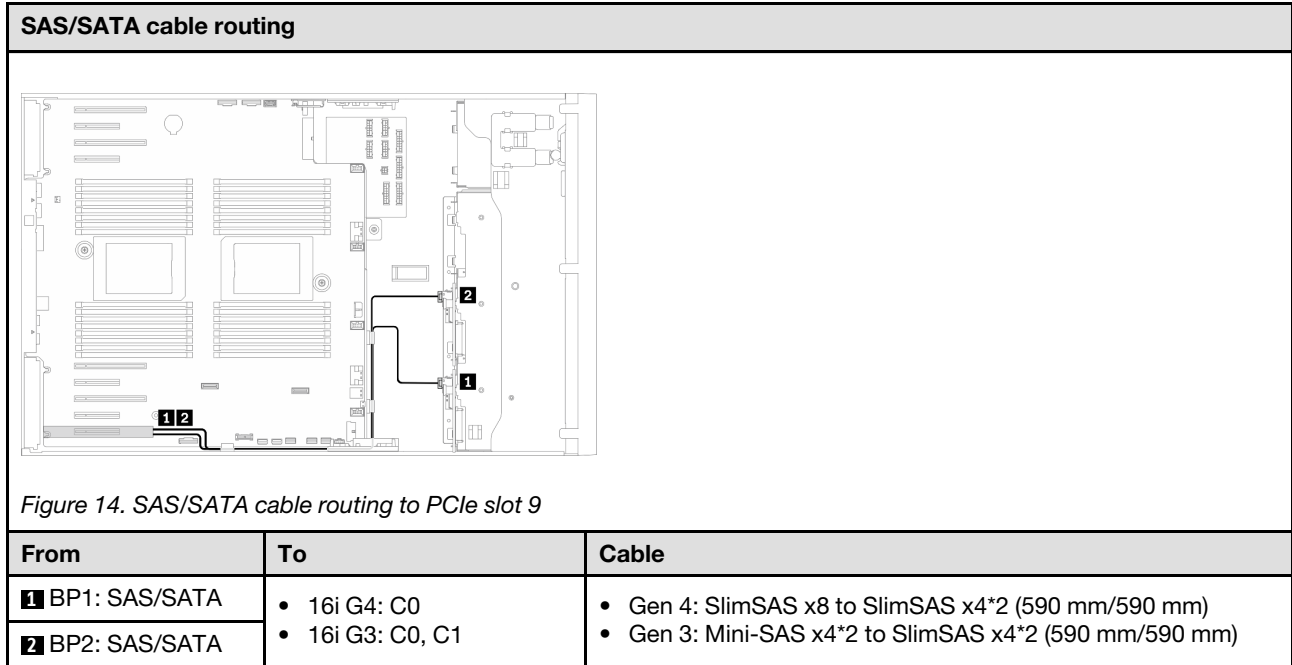


Figure 13. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>

## 1 x 16i RAID/HBA



## 1 x 24i RAID/HBA

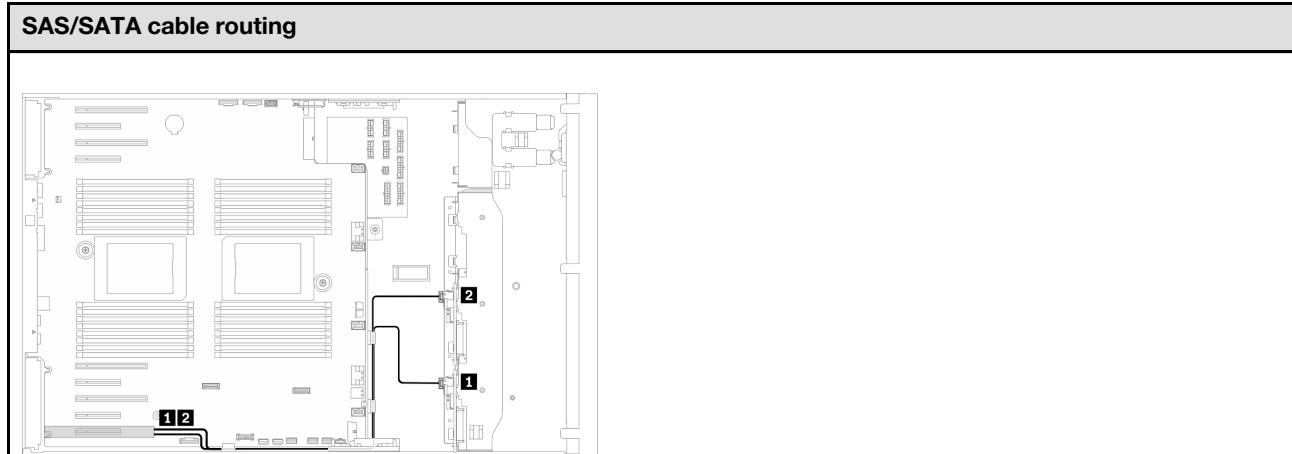


Figure 15. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
<b>2</b> BP2: SAS/SATA		

## 1 x CFF RAID/HBA

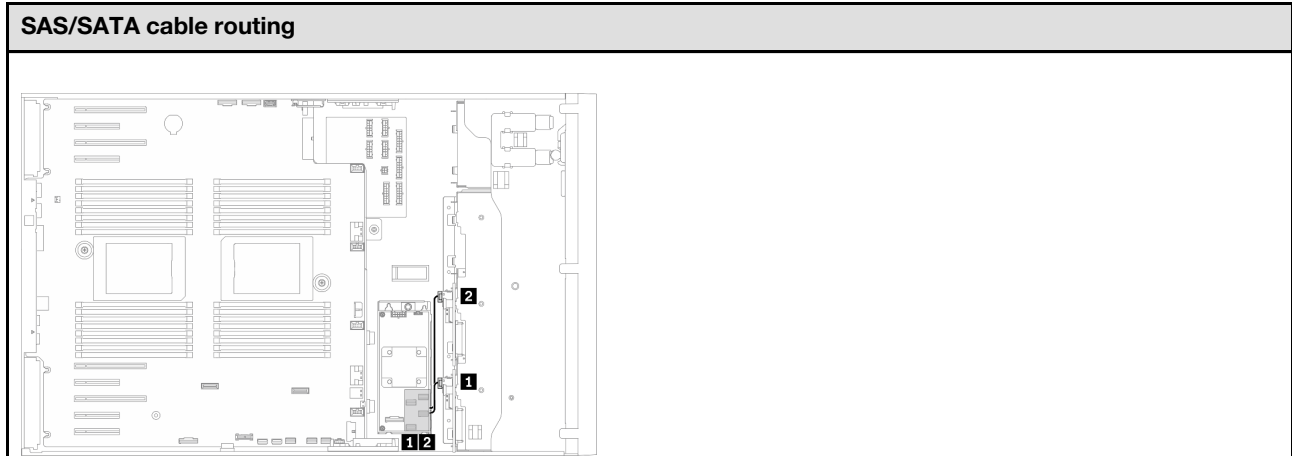


Figure 16. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)

## 3 x SAS/SATA backplanes

This section lists the required components for server models with 3 x SAS/SATA 3.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“2 x 8i RAID/HBA” on page 20](#)
- [“1 x 16i RAID/HBA” on page 21](#)
- [“1 x 24i RAID/HBA” on page 22](#)
- [“1 x CFF RAID/HBA” on page 23](#)

## 2 x 8i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

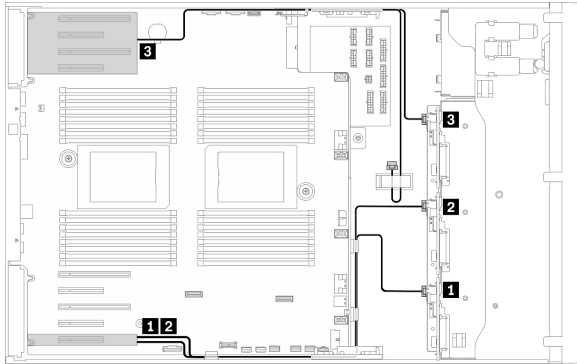


Figure 17. SAS/SATA cable routing to top PCIe zone

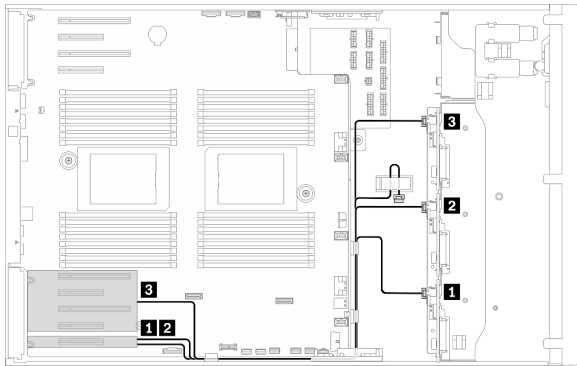
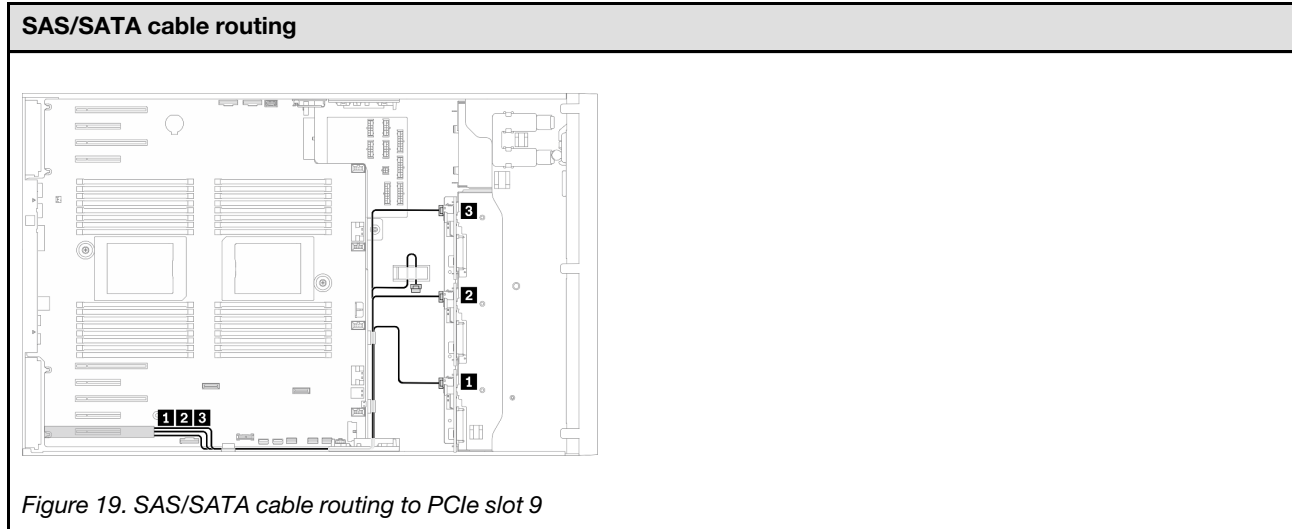


Figure 18. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## 1 x 16i RAID/HBA



From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## 1 x 24i RAID/HBA

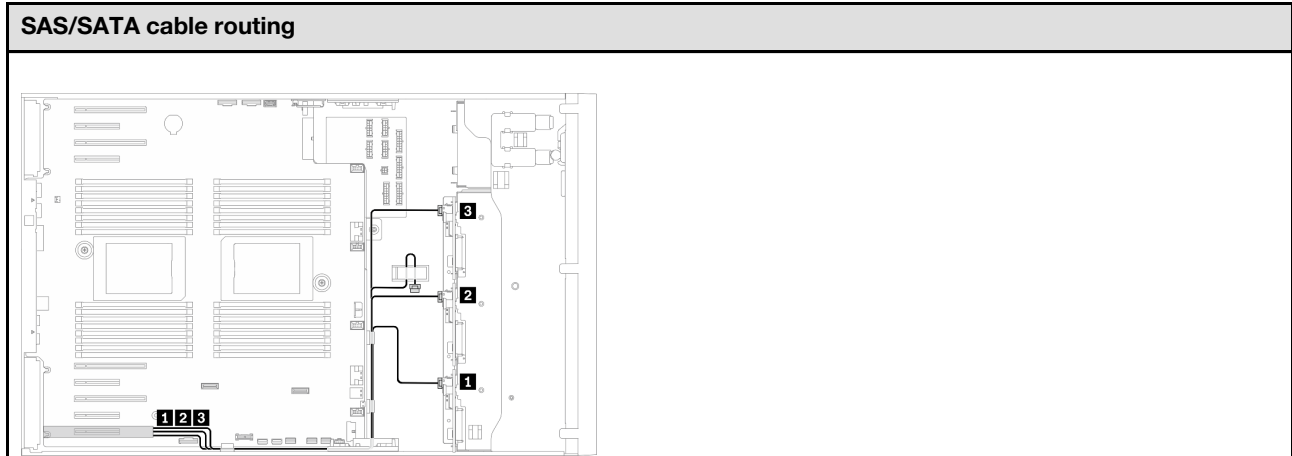


Figure 20. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)



## 1 x CFF RAID/HBA

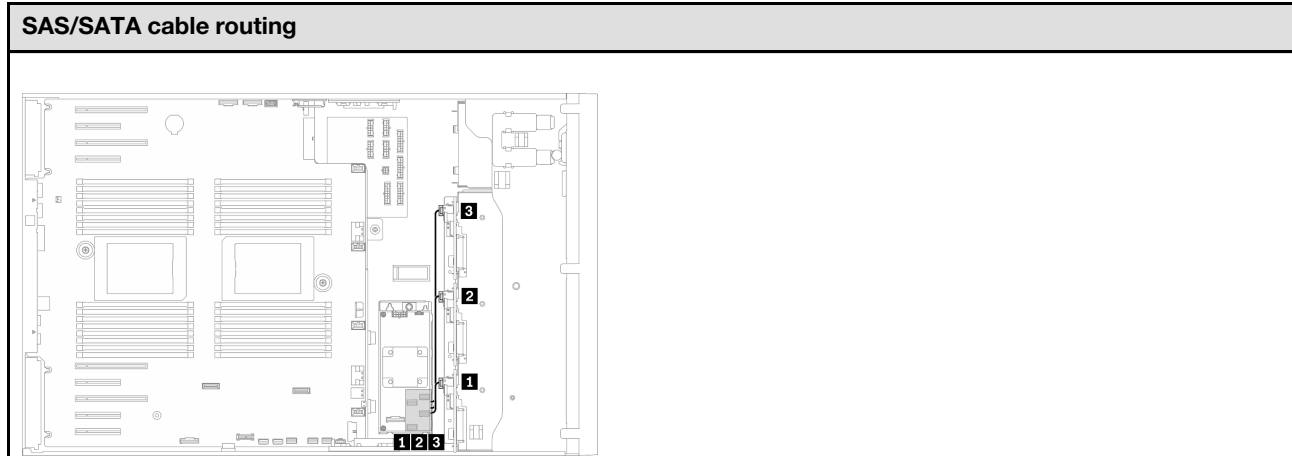


Figure 21. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>3</b> BP3: SAS/SATA	CFF RAID/HBA: C2	SlimSAS x4 to SlimSAS x4 (720 mm)

## 4 x SAS/SATA backplanes

This section lists the required components for server models with 4 x SAS/SATA 3.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“2 x 8i RAID/HBA” on page 25](#)
- [“1 x 16i RAID/HBA” on page 26](#)
- [“1 x 24i RAID/HBA” on page 27](#)
- [“1 x CFF 16i RAID/HBA” on page 28](#)

## 2 x 8i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

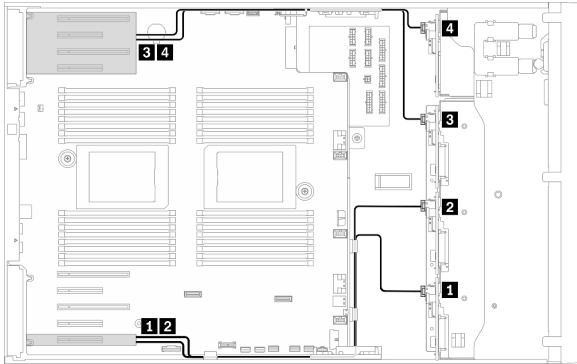


Figure 22. SAS/SATA cable routing to top PCIe zone

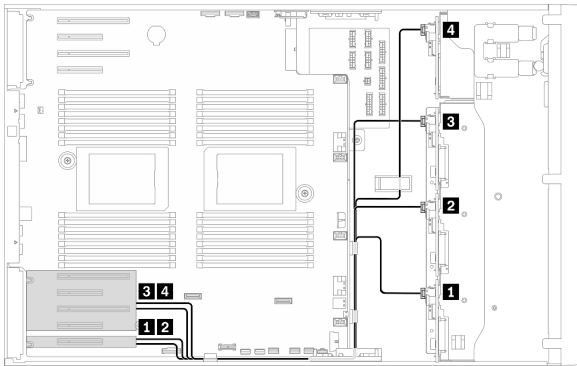


Figure 23. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA		

## 1 x 16i RAID/HBA

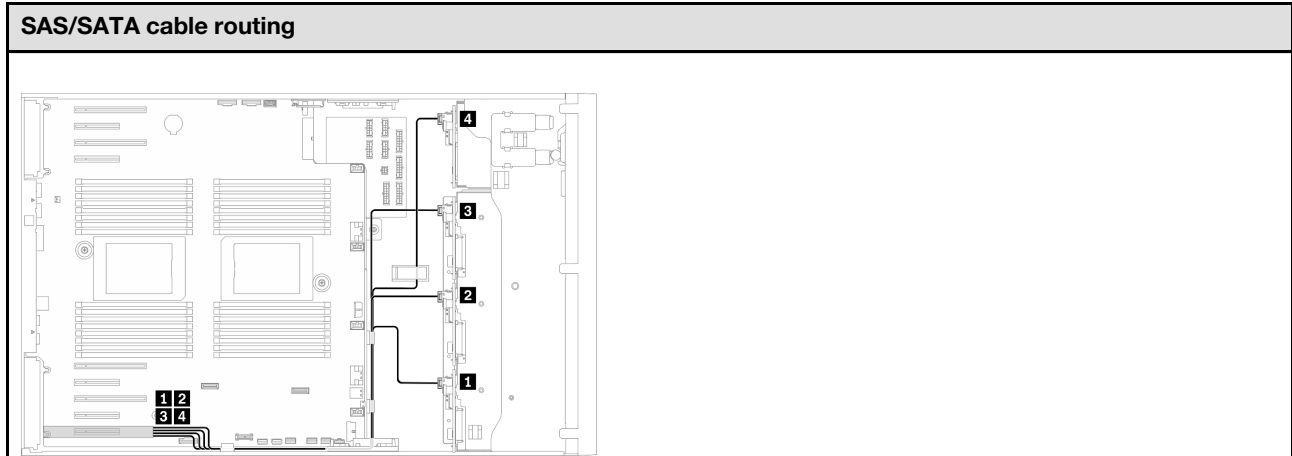


Figure 24. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## 1 x 24i RAID/HBA

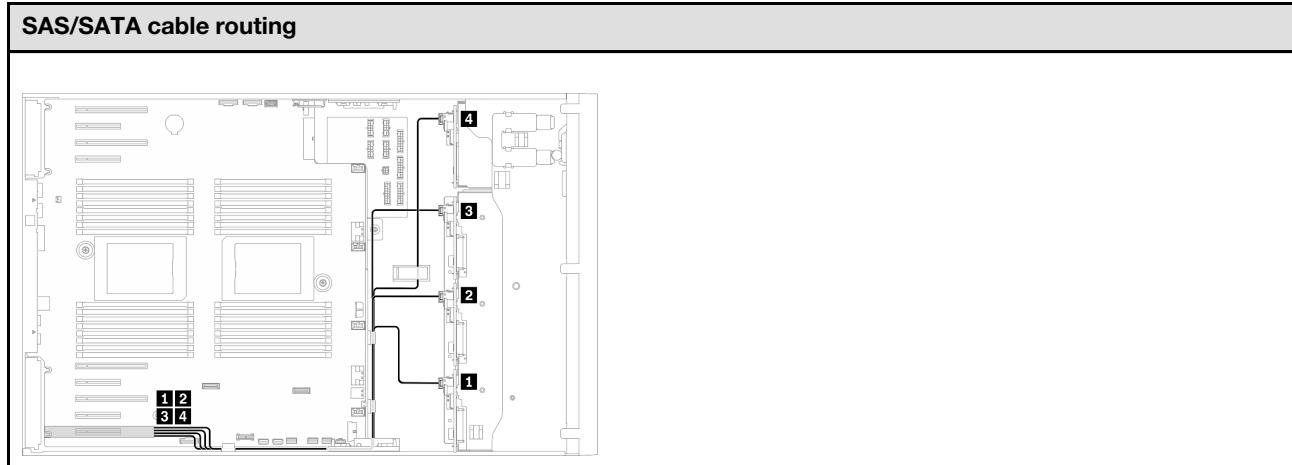


Figure 25. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
<b>4</b> BP4: SAS/SATA		

## 1 x CFF 16i RAID/HBA

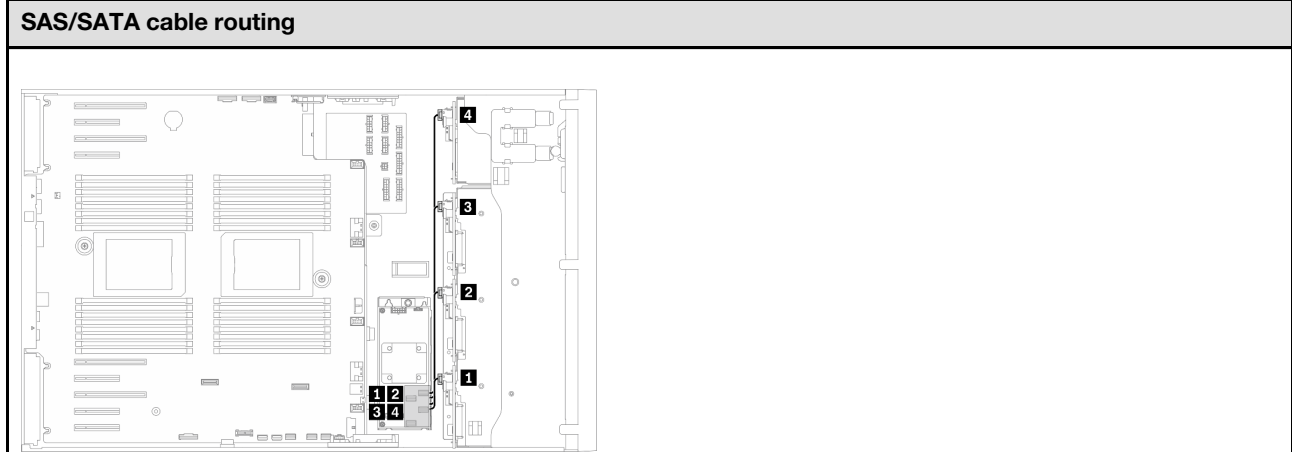


Figure 26. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>3</b> BP3: SAS/SATA	CFF RAID/HBA: C2	SlimSAS x4 to SlimSAS x4 (720 mm)
<b>4</b> BP4: SAS/SATA	CFF RAID/HBA: C3	SlimSAS x4 to SlimSAS x4 (720 mm)

## 1 x SAS/SATA + 1 x NVMe backplane

This section lists the required components for server models with 1 x SAS/SATA + 1 x NVMe 3.5-inch hot-swap backplane.

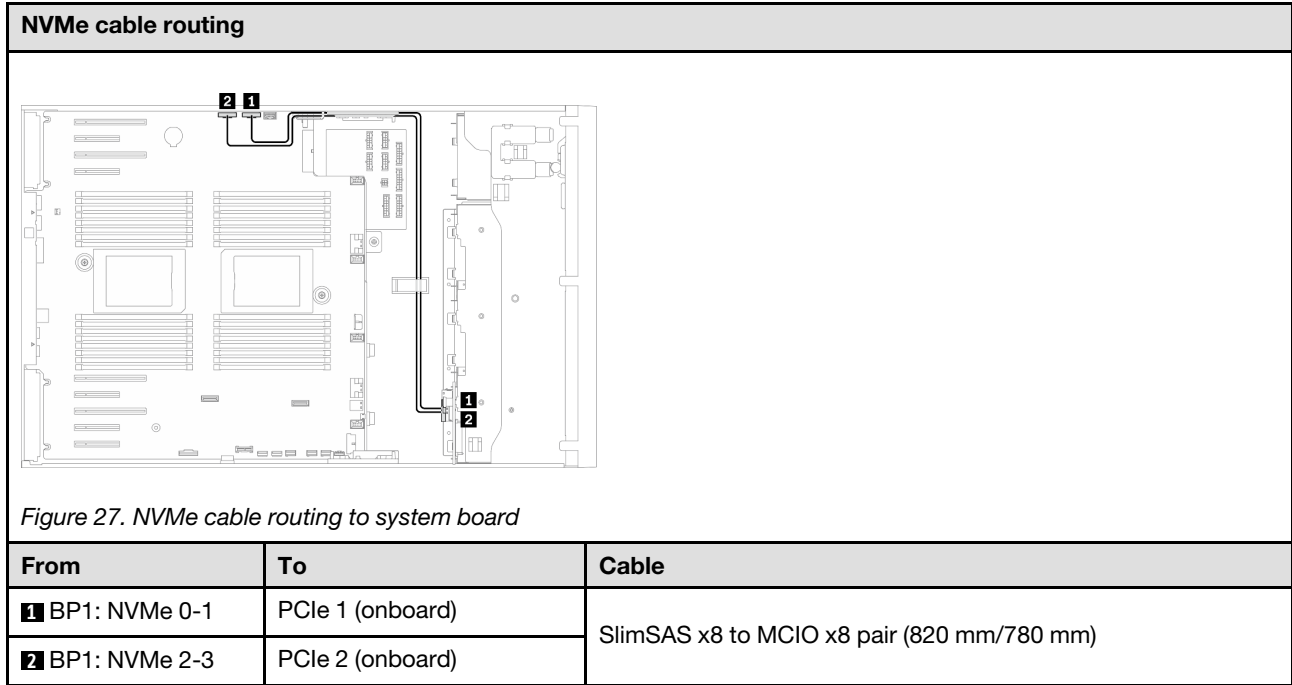
### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 30](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 32](#)
- [“Onboard NVMe + 1 x 24i RAID/HBA” on page 34](#)
- [“Onboard NVMe + 1 x CFF RAID/HBA” on page 36](#)

## Onboard NVMe + 1 x 8i RAID/HBA





## SAS/SATA cable routing

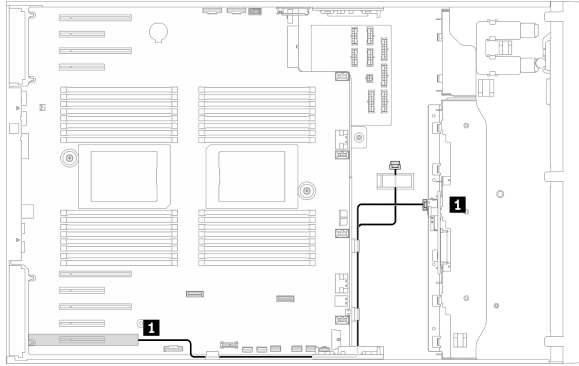
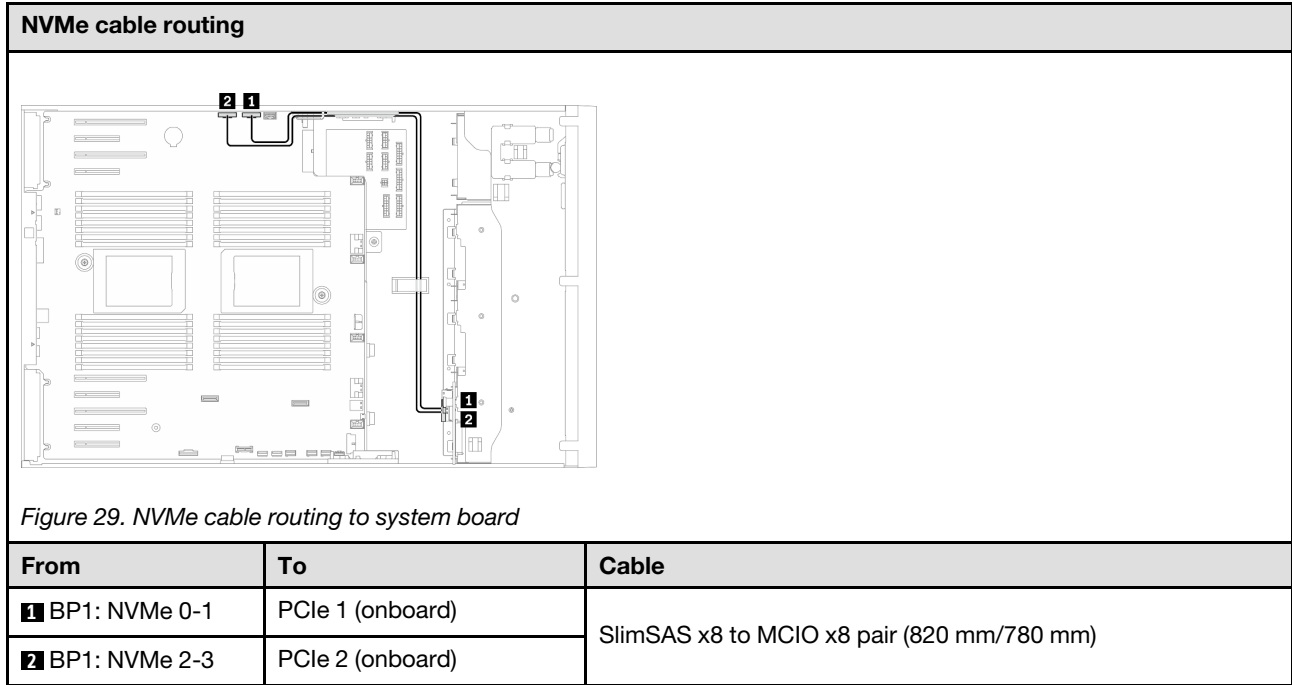


Figure 28. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>

## Onboard NVMe + 1 x 16i RAID/HBA



## SAS/SATA cable routing

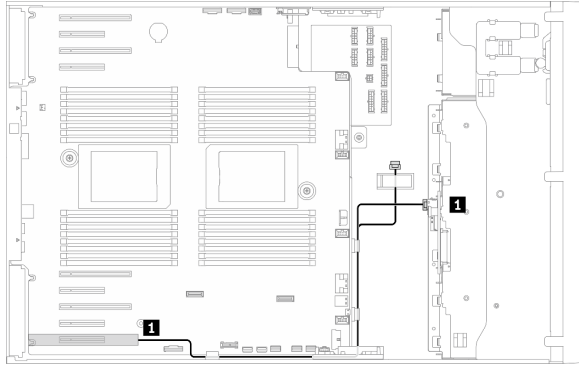
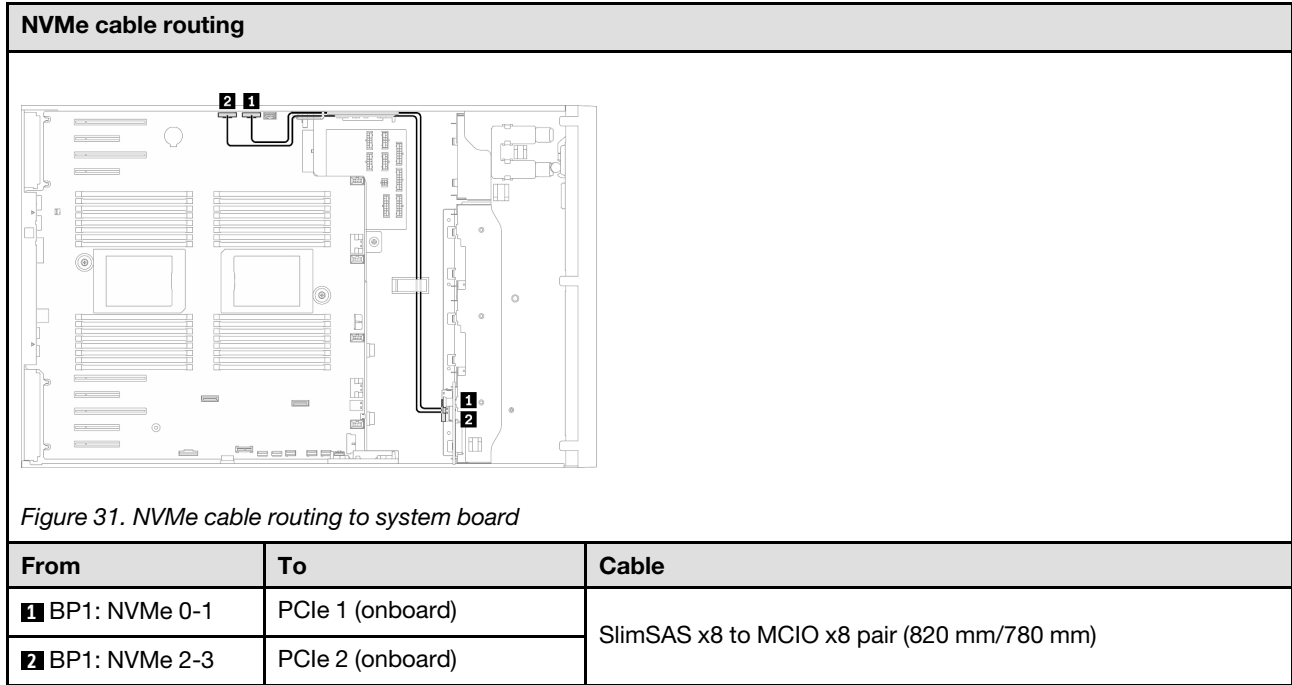


Figure 30. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>

## Onboard NVMe + 1 x 24i RAID/HBA



## SAS/SATA cable routing

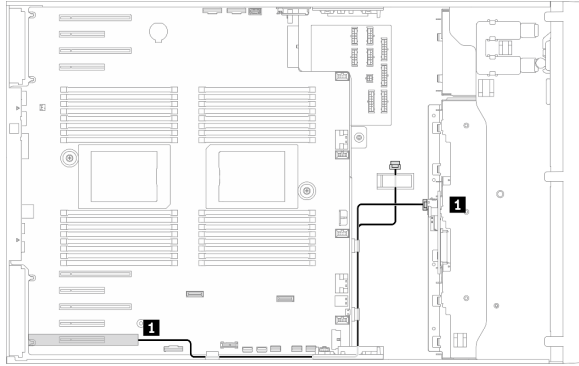
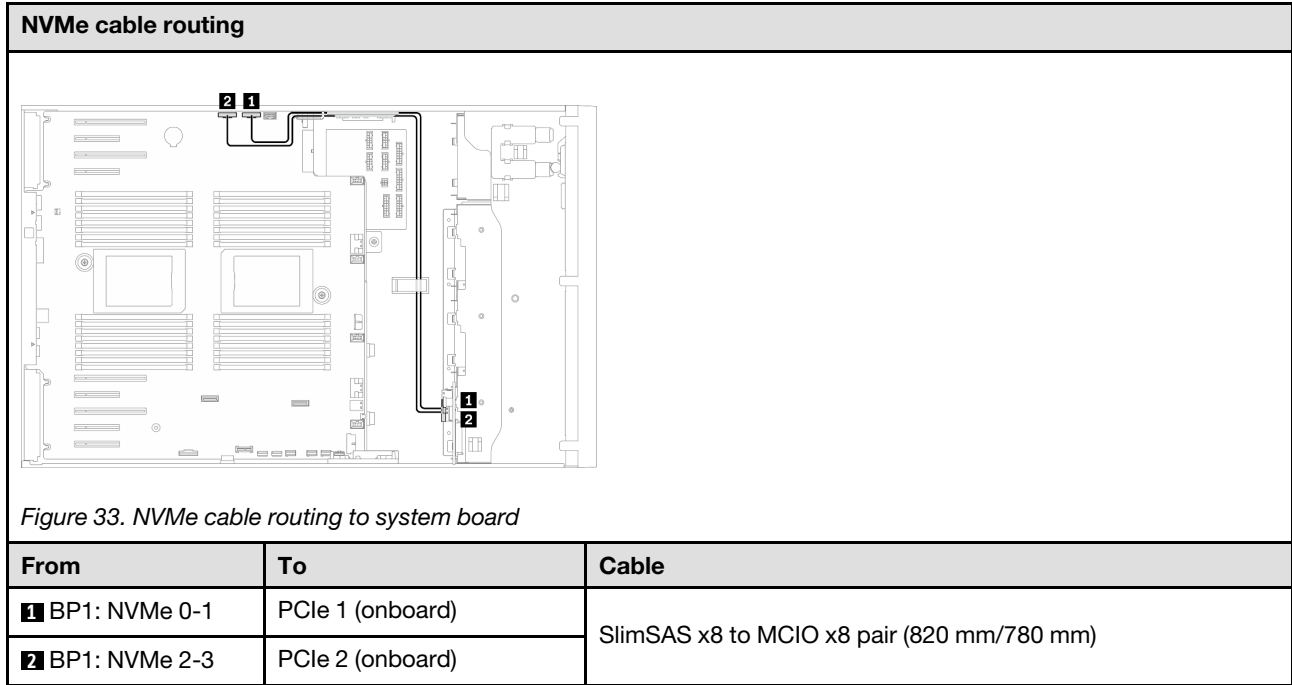


Figure 32. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)

## Onboard NVMe + 1 x CFF RAID/HBA



## SAS/SATA cable routing

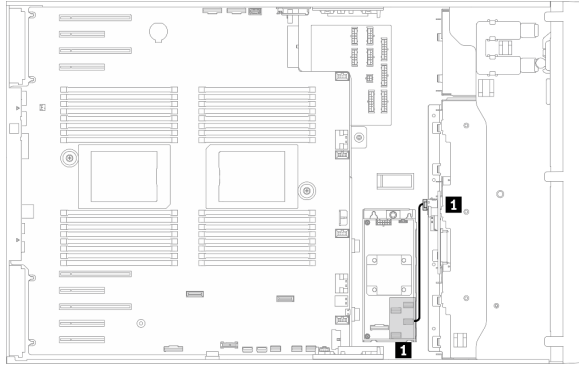


Figure 34. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP2: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)

## 1 x SAS/SATA + 2 x NVMe backplanes

This section lists the required components for server models with 1 x SAS/SATA + 2 x NVMe 3.5-inch hot-swap backplanes.

### Notes:

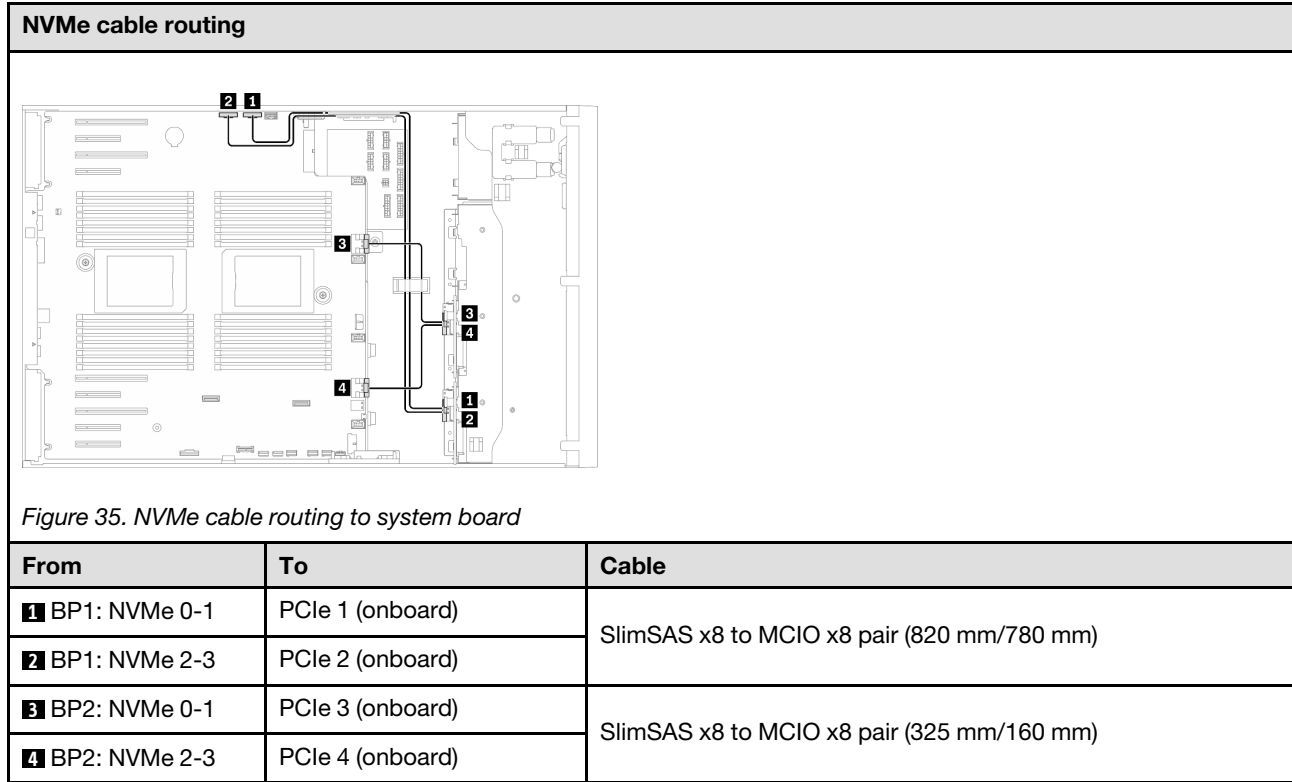
- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA” on page 39](#)
- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 41](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 43](#)
- [“Onboard NVMe + 1 x 24i RAID/HBA” on page 45](#)
- [“Onboard NVMe/SATA + 1 x retimer” on page 47](#)
- [“Onboard NVMe + 1 x retimer + 1 x 8i RAID/HBA” on page 49](#)
- [“Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA” on page 51](#)
- [“Onboard NVMe + 1 x retimer + 1 x 24i RAID/HBA” on page 53](#)



## Onboard NVMe/SATA



## SAS/SATA cable routing

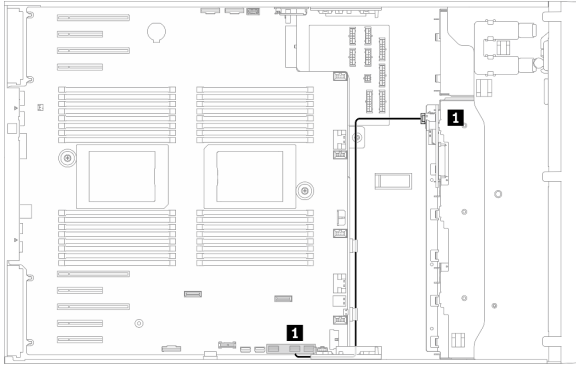
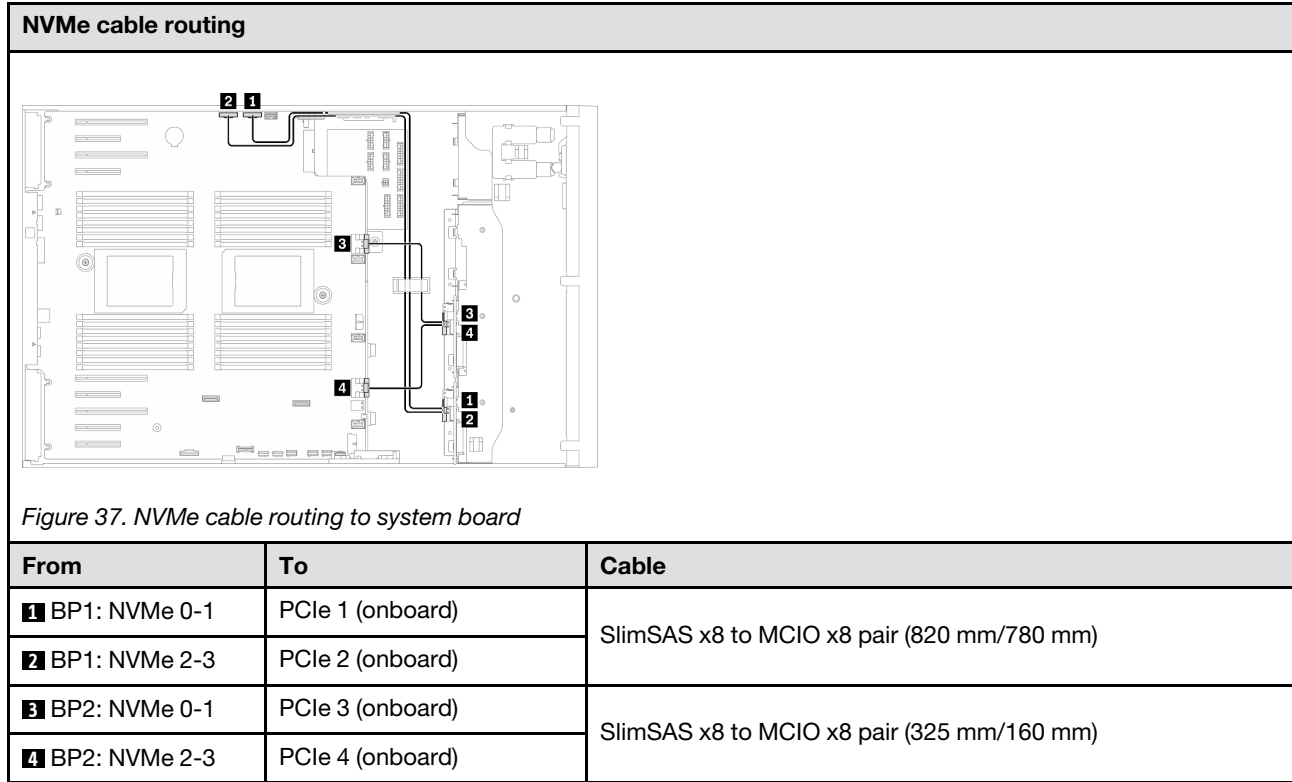


Figure 36. SAS/SATA cable routing to system board

From	To	Cable
1 BP3: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)

## Onboard NVMe + 1 x 8i RAID/HBA



## SAS/SATA cable routing

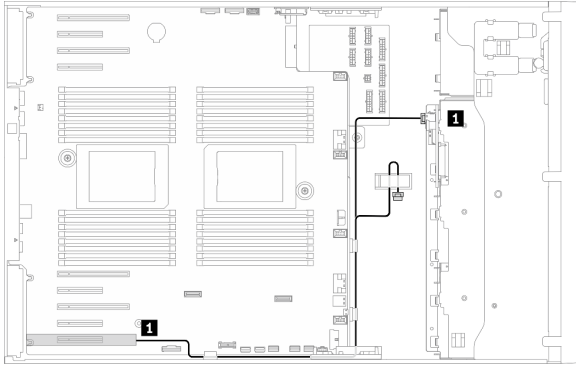
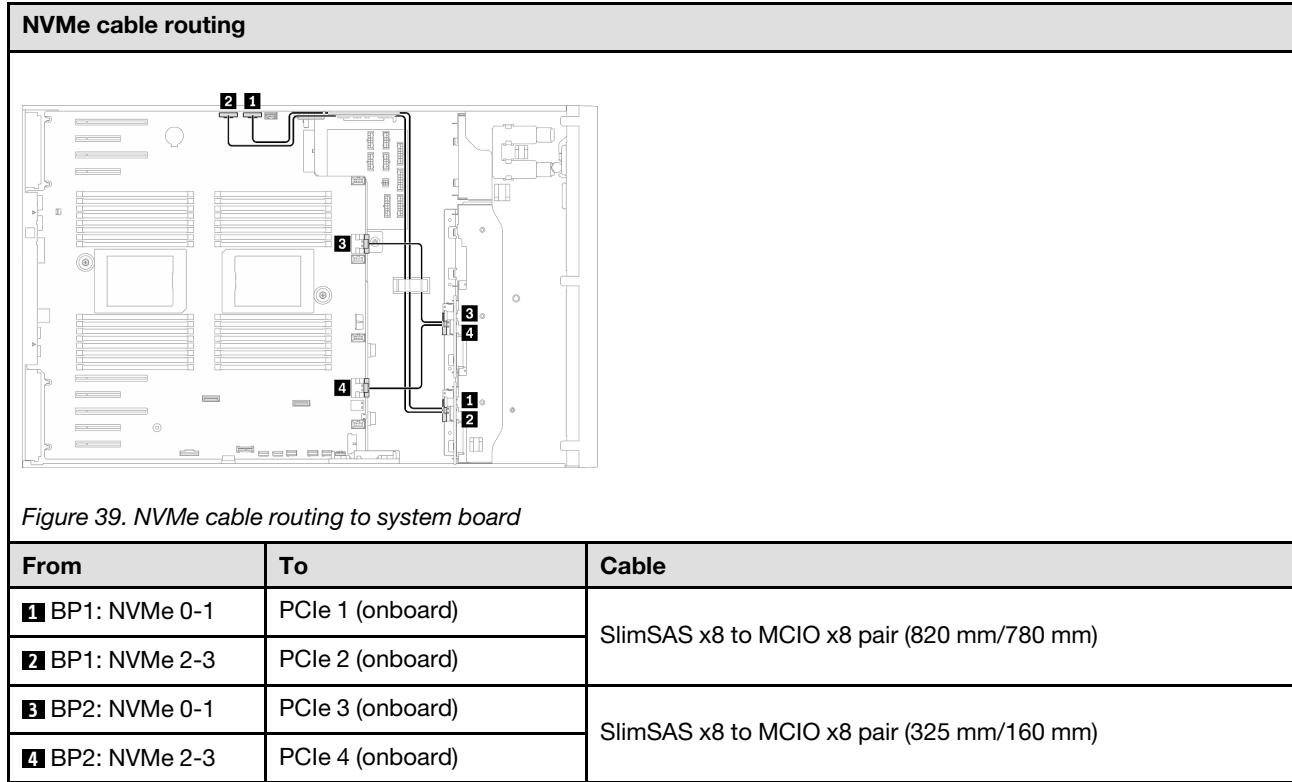


Figure 38. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x 16i RAID/HBA



## SAS/SATA cable routing

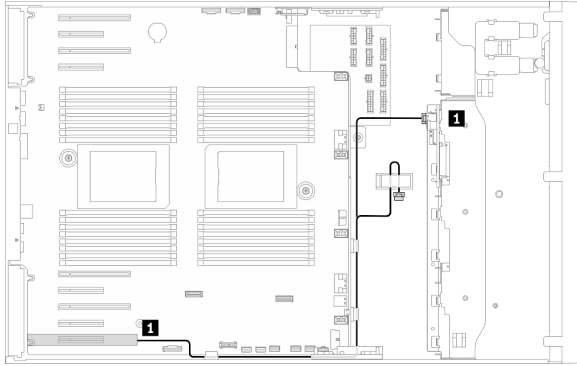


Figure 40. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x 24i RAID/HBA

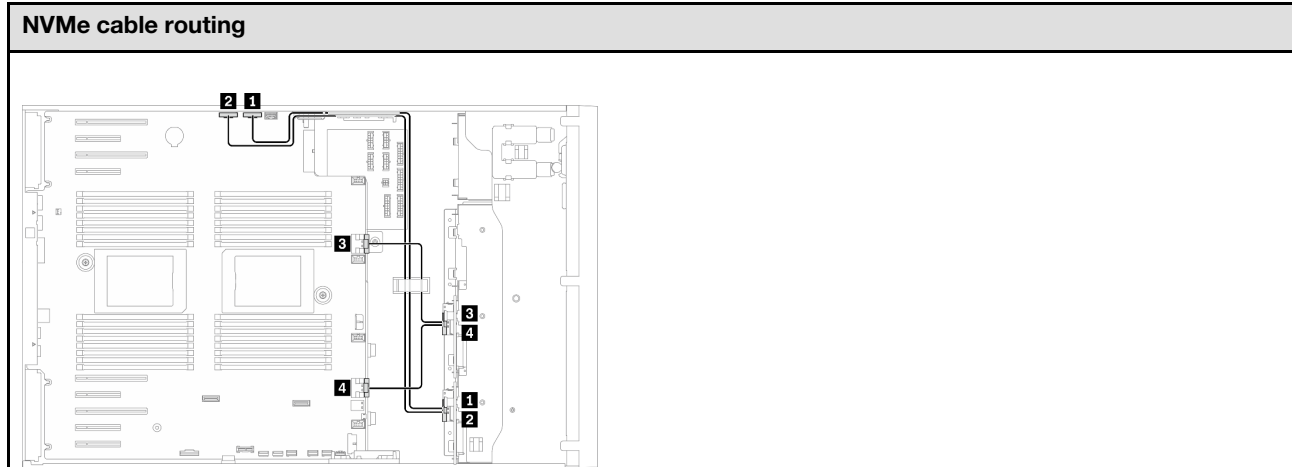


Figure 41. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

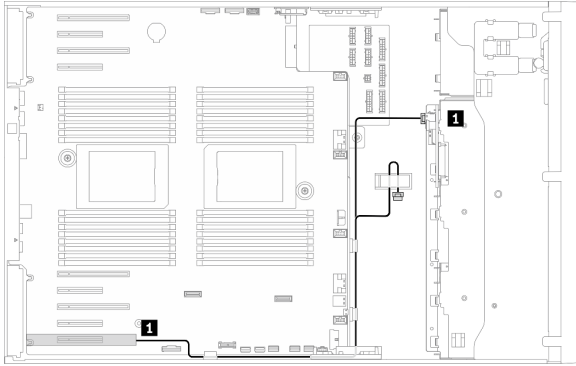


Figure 42. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)



## Onboard NVMe/SATA + 1 x retimer

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

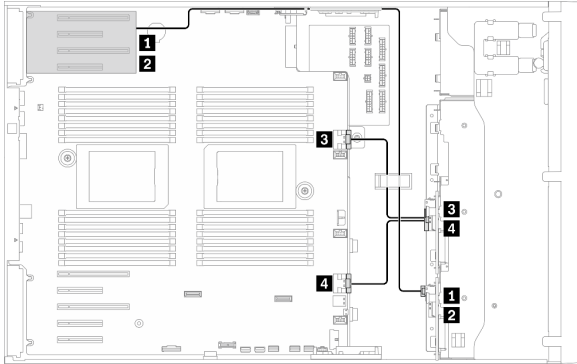


Figure 43. NVMe cable routing to system board and top PCIe zone

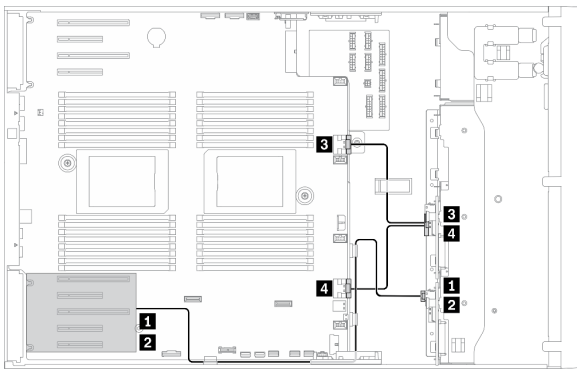


Figure 44. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

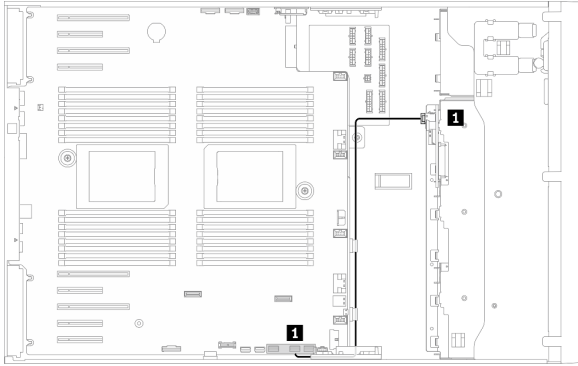


Figure 45. SAS/SATA cable routing to system board

From	To	Cable
1 BP3: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)

## Onboard NVMe + 1 x retimer + 1 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

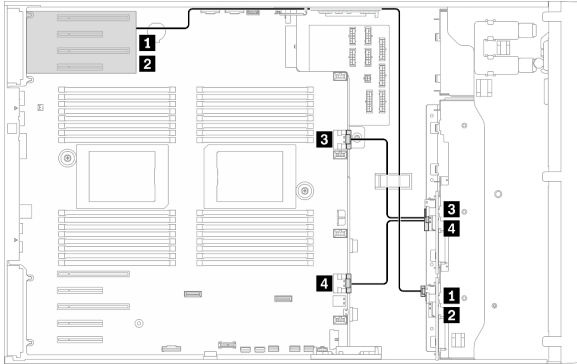


Figure 46. NVMe cable routing to system board and top PCIe zone

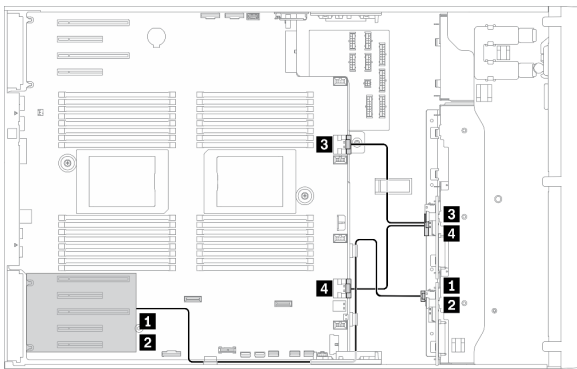


Figure 47. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

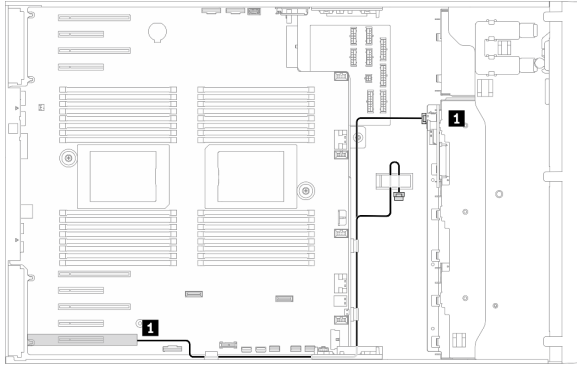


Figure 48. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

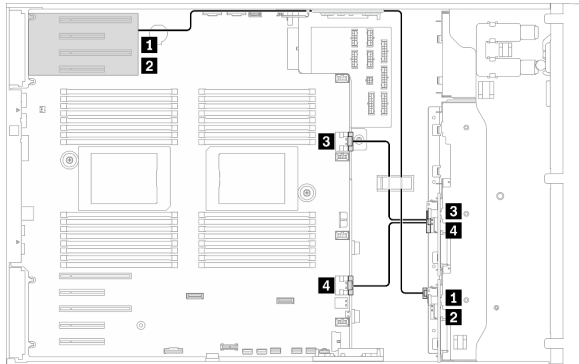


Figure 49. NVMe cable routing to system board and top PCIe zone

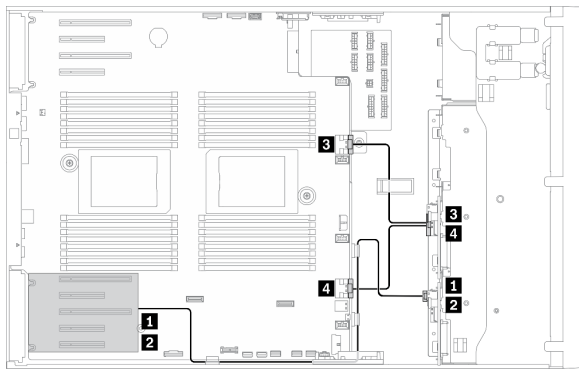


Figure 50. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

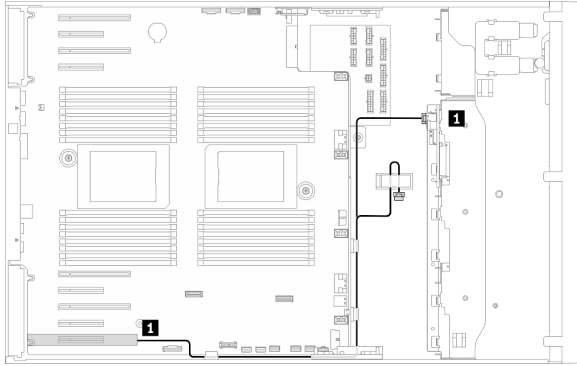


Figure 51. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x retimer + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

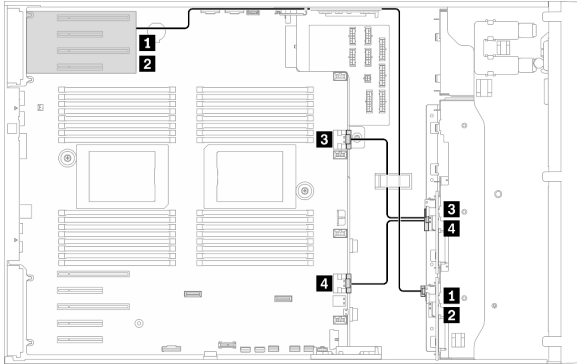


Figure 52. NVMe cable routing to system board and top PCIe zone

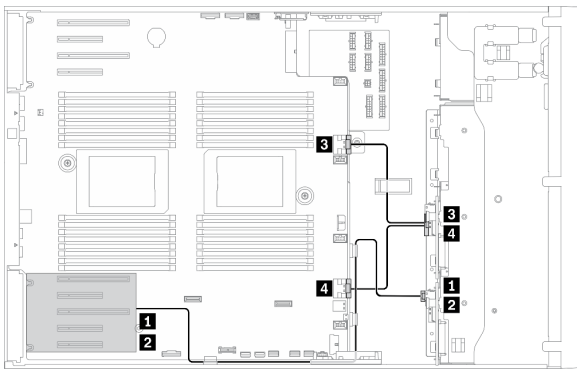


Figure 53. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

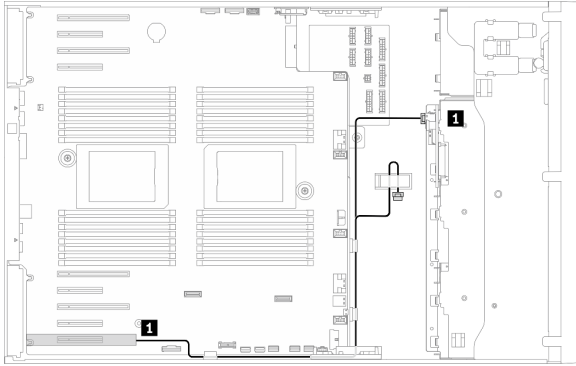


Figure 54. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)



## 2 x SAS/SATA + 1 x NVMe backplane

This section lists the required components for server models with 2 x SAS/SATA + 1 x NVMe 3.5-inch hot-swap backplane.

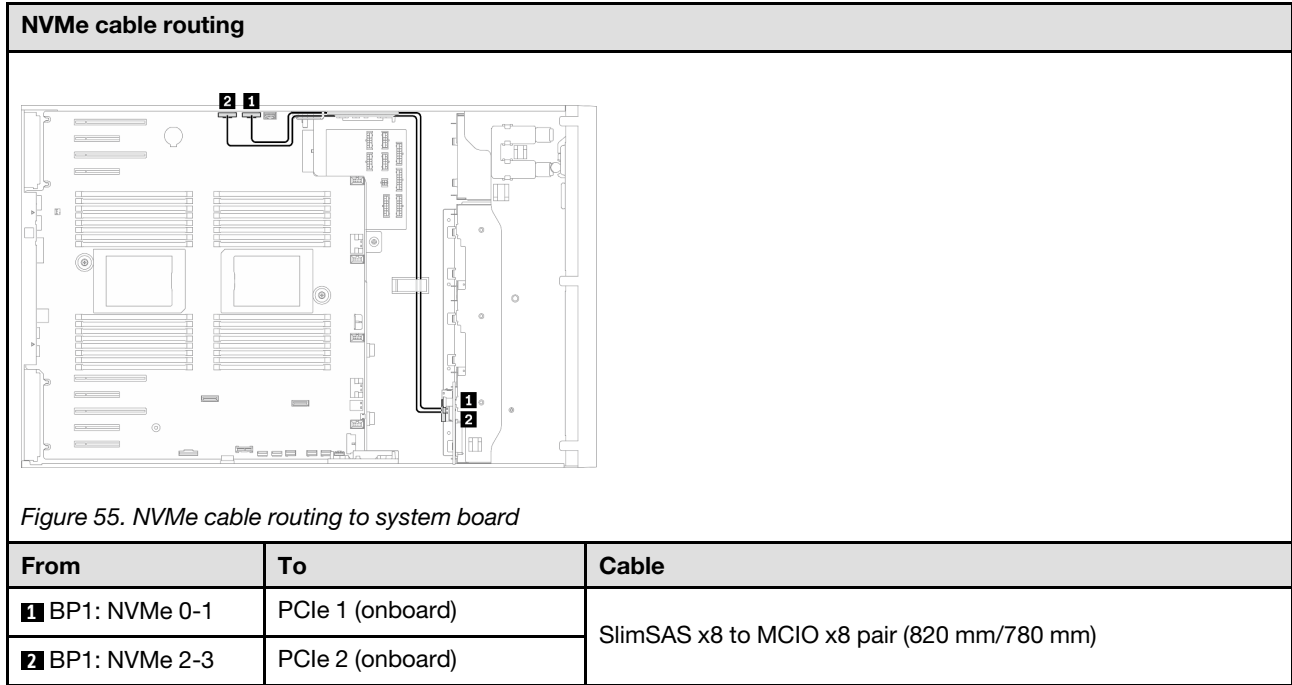
### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA” on page 56](#)
- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 58](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 60](#)
- [“Onboard NVMe + 1 x 24i RAID/HBA” on page 62](#)
- [“Onboard NVMe + 1 x CFF RAID/HBA” on page 64](#)

## Onboard NVMe/SATA



## SAS/SATA cable routing

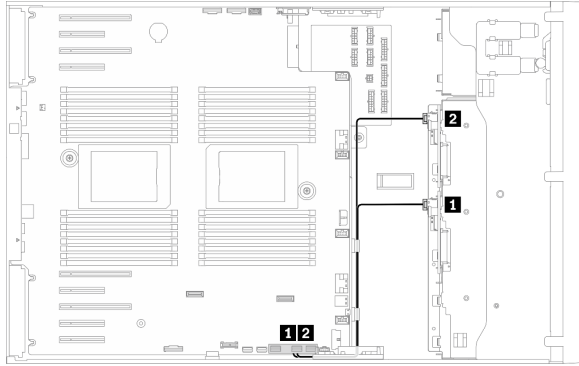
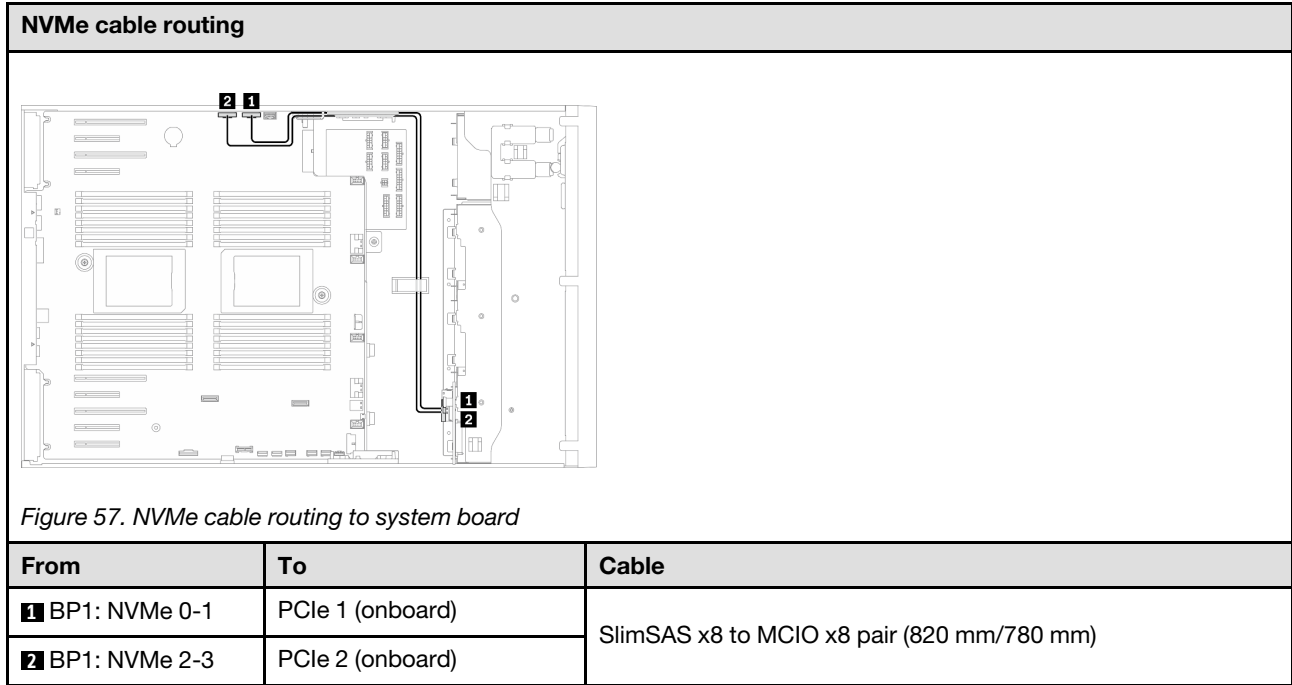


Figure 56. SAS/SATA cable routing to system board

From	To	Cable
<b>1</b> BP2: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>2</b> BP3: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)

## Onboard NVMe + 1 x 8i RAID/HBA



## SAS/SATA cable routing

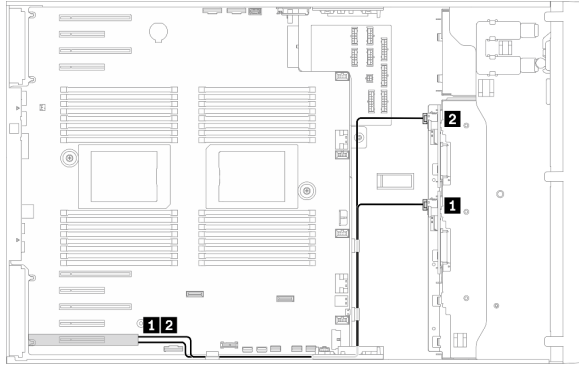
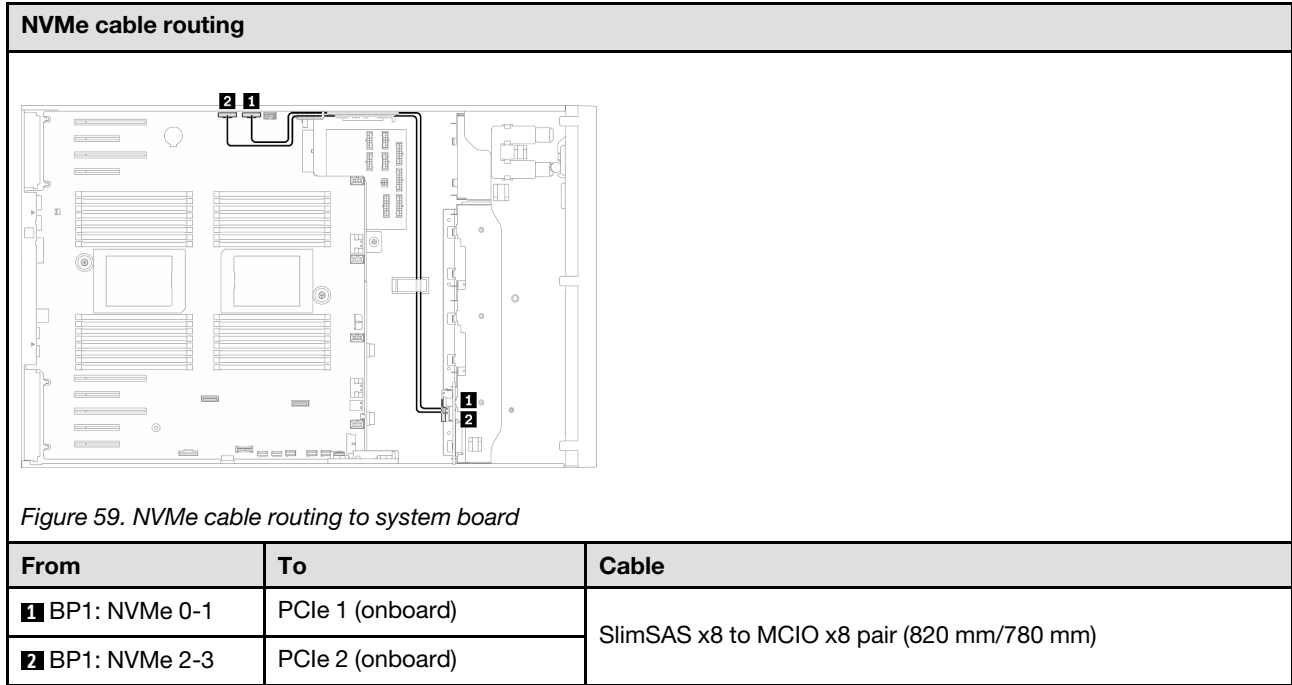


Figure 58. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>2</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x 16i RAID/HBA



## SAS/SATA cable routing

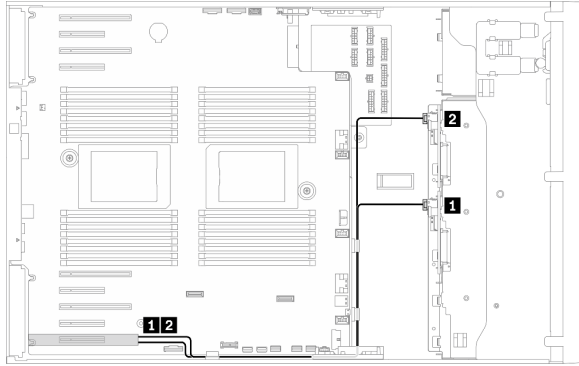


Figure 60. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>2</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x 24i RAID/HBA

NVMe cable routing		
<p>Figure 61. NVMe cable routing to system board</p>		
From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	



## SAS/SATA cable routing

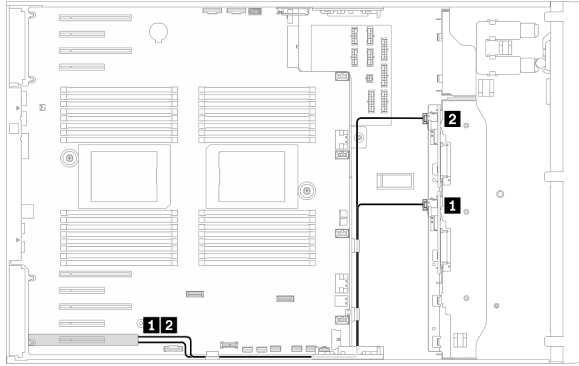
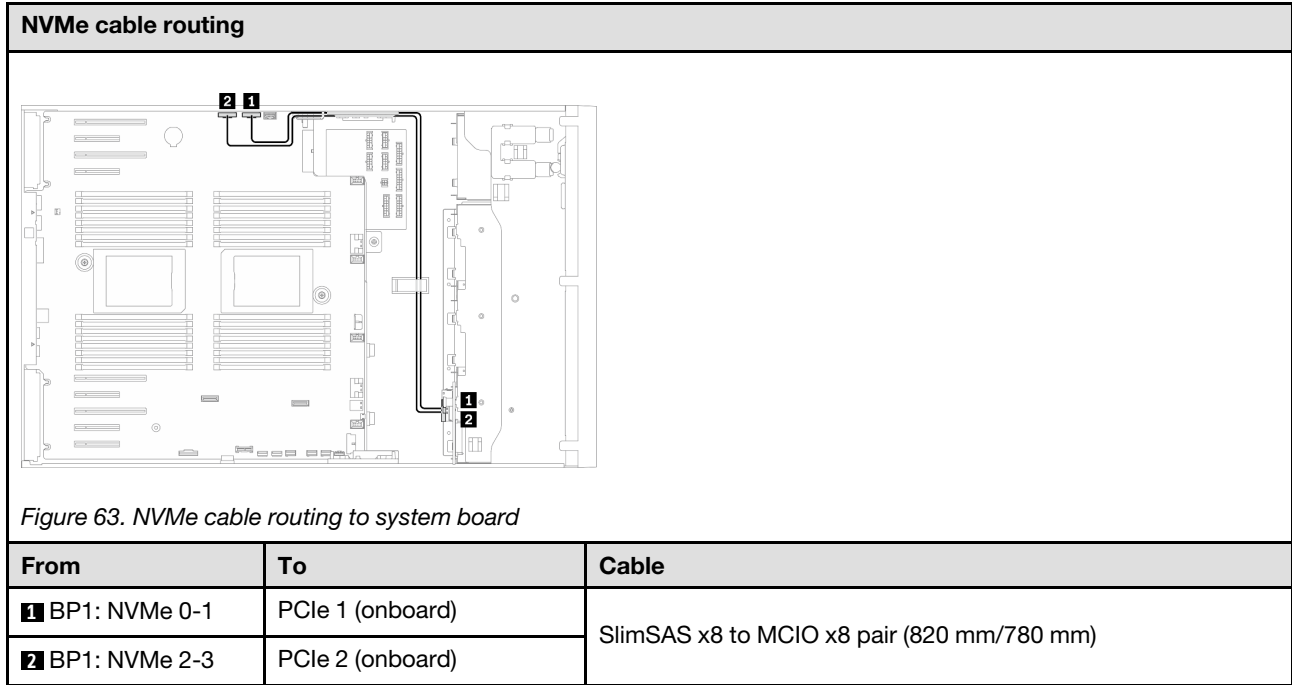


Figure 62. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
<b>2</b> BP3: SAS/SATA		

## Onboard NVMe + 1 x CFF RAID/HBA



## SAS/SATA cable routing

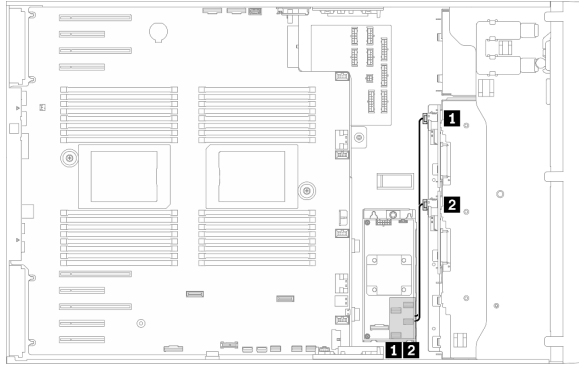


Figure 64. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP2: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>2</b> BP3: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (720 mm)

## 2 x SAS/SATA + 2 x NVMe backplanes

This section lists the required components for server models with 2 x SAS/SATA + 2 x NVMe 3.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 67](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 69](#)
- [“Onboard NVMe + 1 x 24i RAID/HBA” on page 71](#)
- [“Onboard NVMe + 1 x retimer + 1 x 8i RAID/HBA” on page 73](#)
- [“Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA” on page 75](#)
- [“Onboard NVMe + 1 x retimer + 1 x 24i RAID/HBA” on page 77](#)
- [“2 x retimers + 1 x 8i RAID/HBA” on page 79](#)
- [“2 x retimers + 1 x 16i RAID/HBA” on page 81](#)
- [“2 x retimers + 1 x 24i RAID/HBA” on page 83](#)
- [“2 x retimers + 1 x CFF RAID/HBA” on page 85](#)

## Onboard NVMe + 1 x 8i RAID/HBA

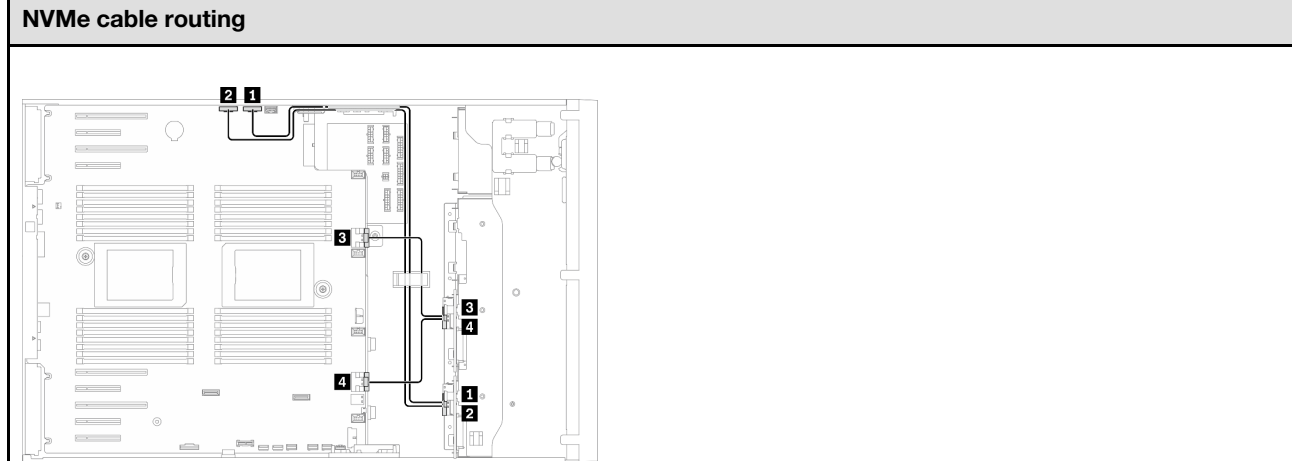


Figure 65. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

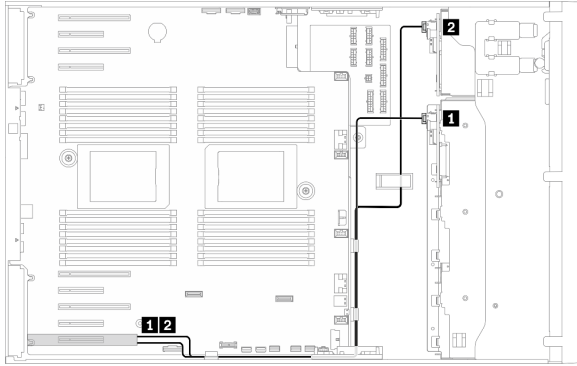
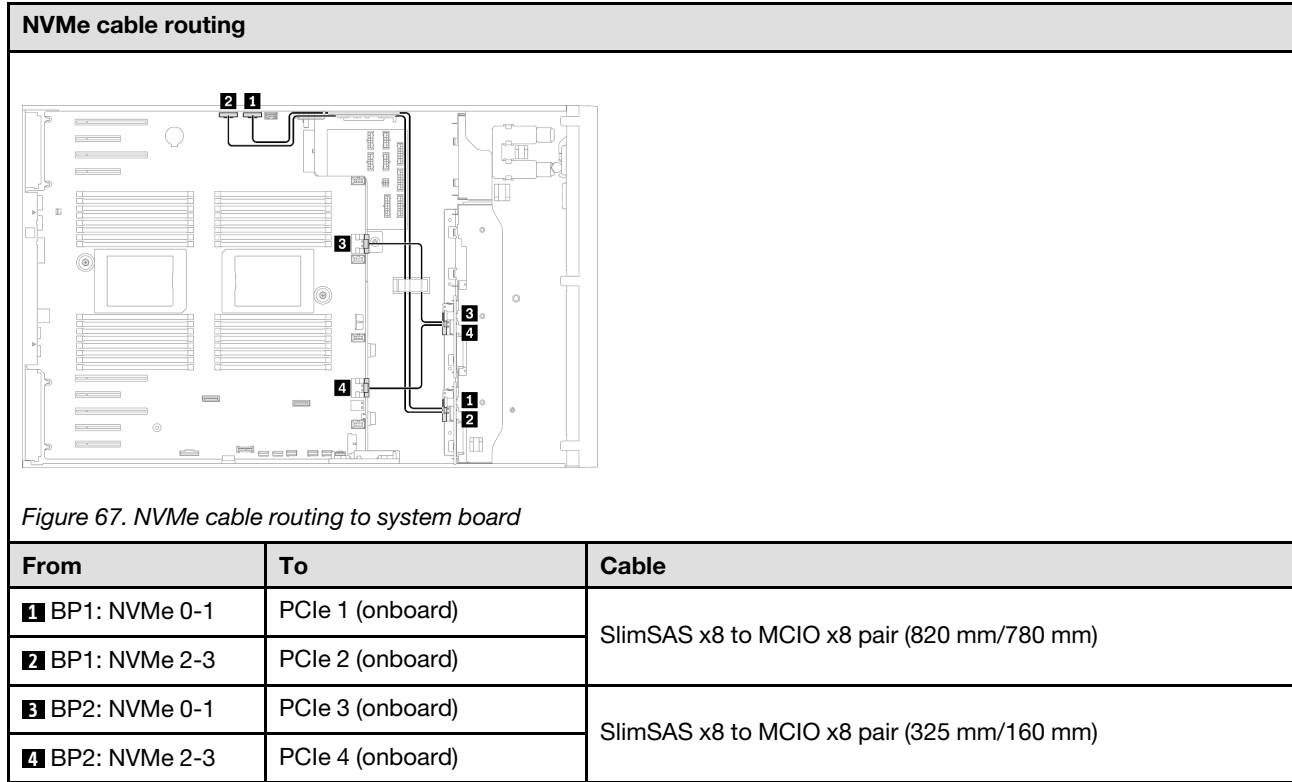


Figure 66. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x 16i RAID/HBA



## SAS/SATA cable routing

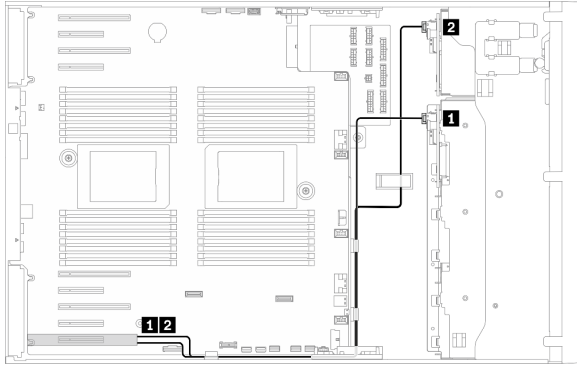


Figure 68. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C1, C2</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>



## Onboard NVMe + 1 x 24i RAID/HBA

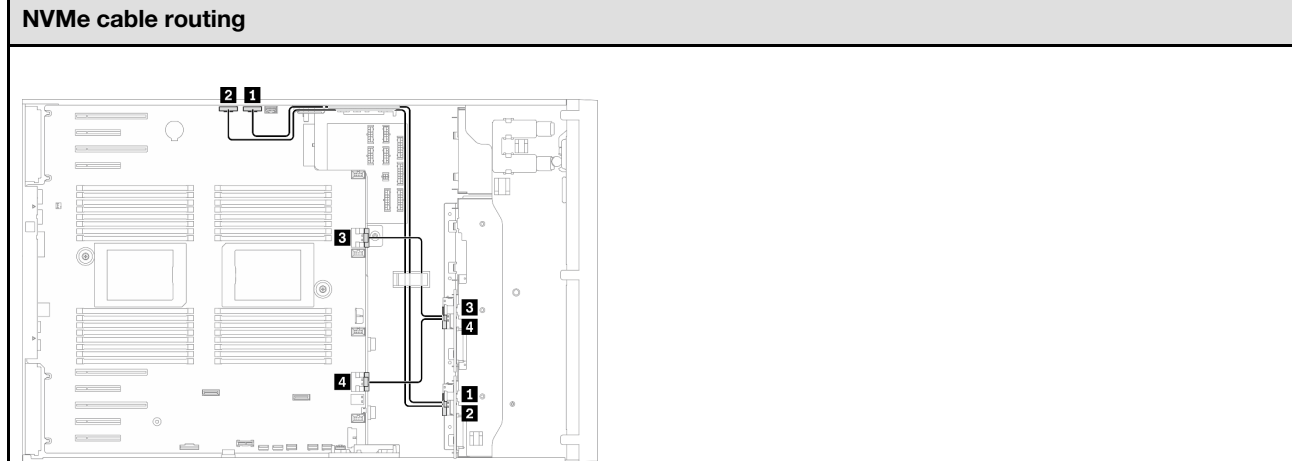


Figure 69. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

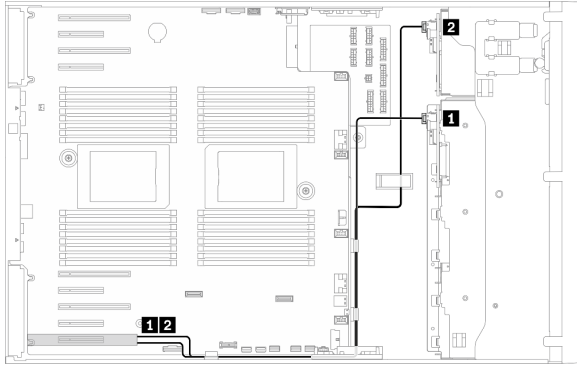


Figure 70. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>3</b> BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
<b>4</b> BP4: SAS/SATA		

## Onboard NVMe + 1 x retimer + 1 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

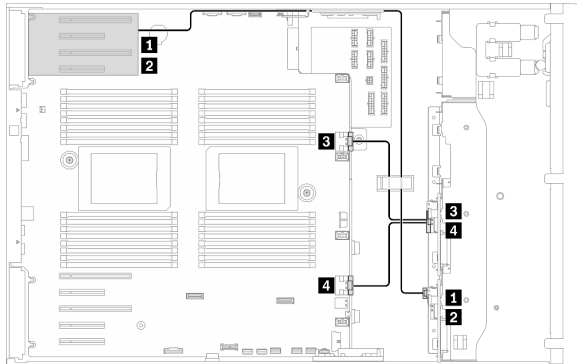


Figure 71. NVMe cable routing to system board and top PCIe zone

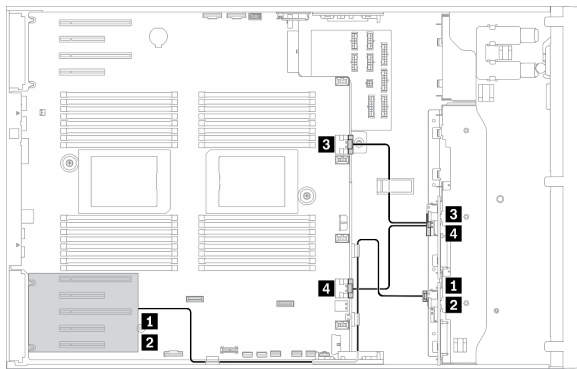


Figure 72. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

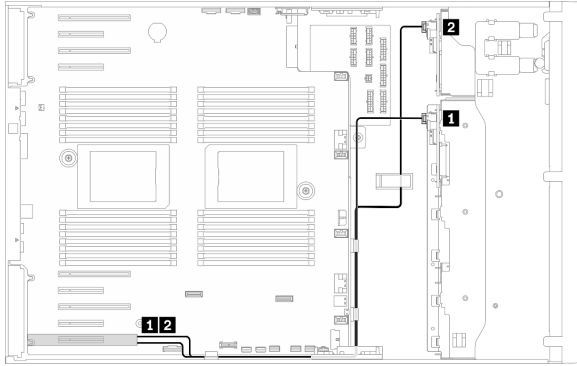


Figure 73. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

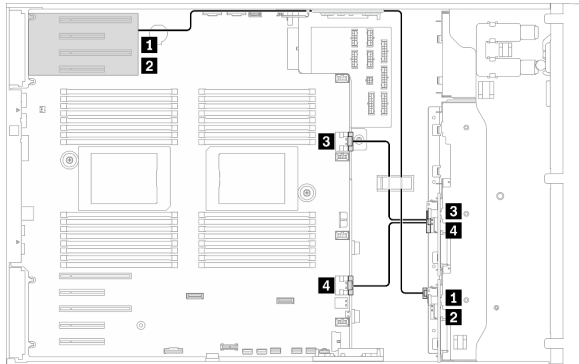


Figure 74. NVMe cable routing to system board and top PCIe zone

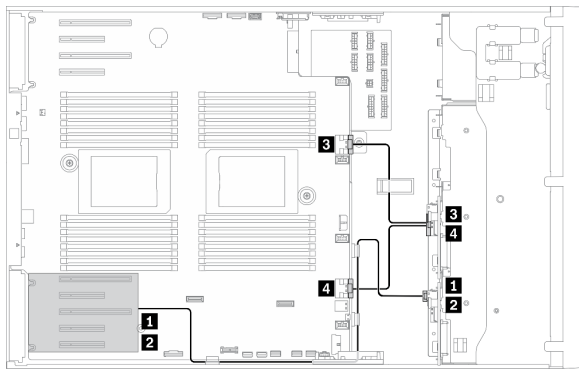


Figure 75. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

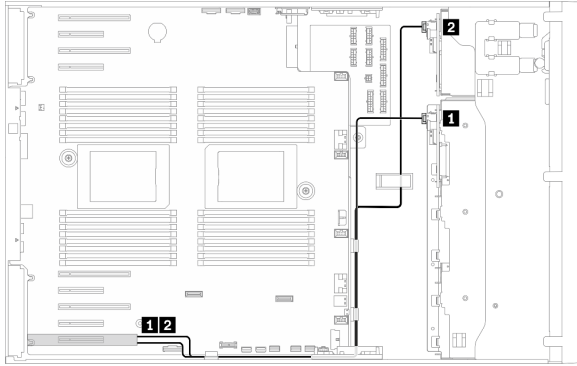


Figure 76. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x retimer + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

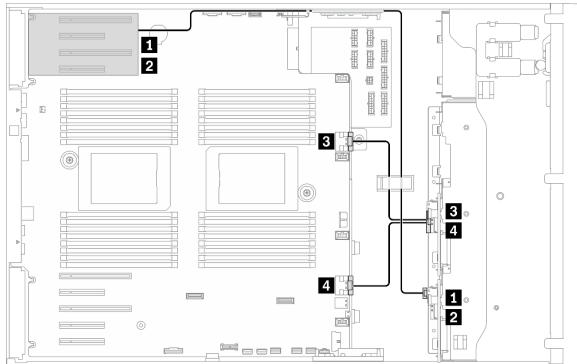


Figure 77. NVMe cable routing to system board and top PCIe zone

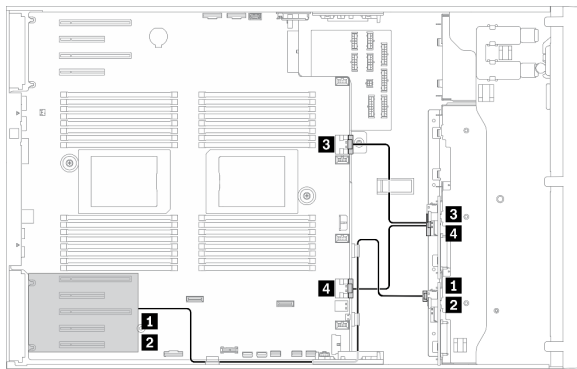


Figure 78. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

**SAS/SATA cable routing**

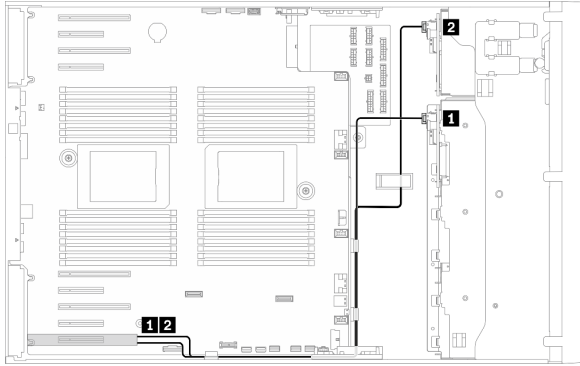


Figure 79. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>3</b> BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
<b>4</b> BP4: SAS/SATA		



## 2 x retimers + 1 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

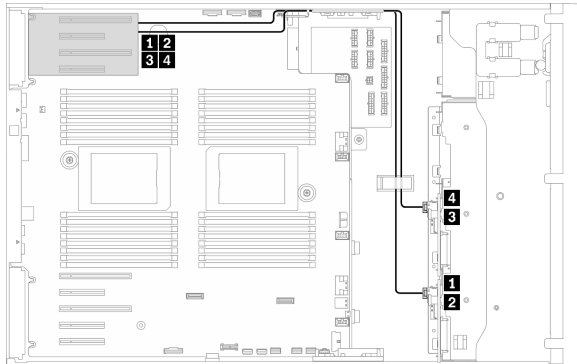


Figure 80. NVMe cable routing to top PCIe zone

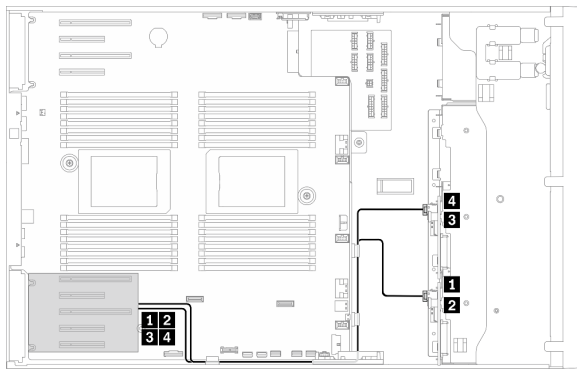


Figure 81. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>4</b> BP2: NVMe 2-3	Retimer: C1	

## SAS/SATA cable routing

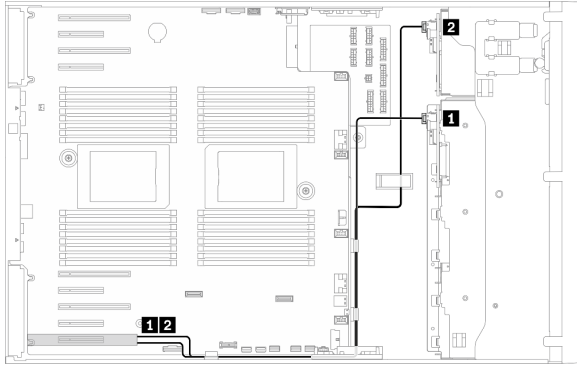


Figure 82. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## 2 x retimers + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

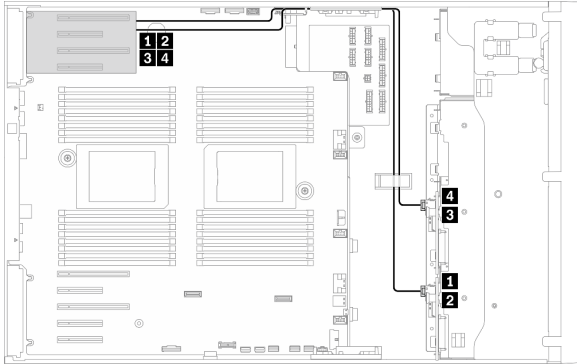


Figure 83. NVMe cable routing to top PCIe zone

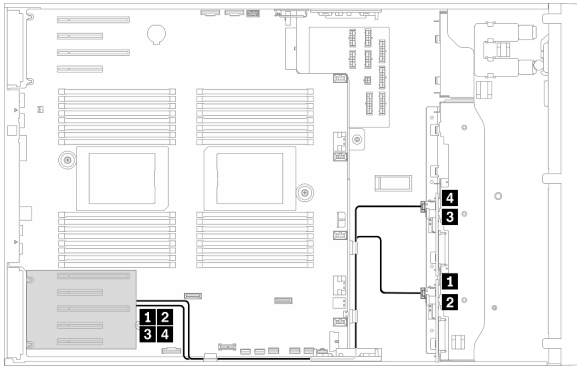


Figure 84. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>4</b> BP2: NVMe 2-3	Retimer: C1	

## SAS/SATA cable routing

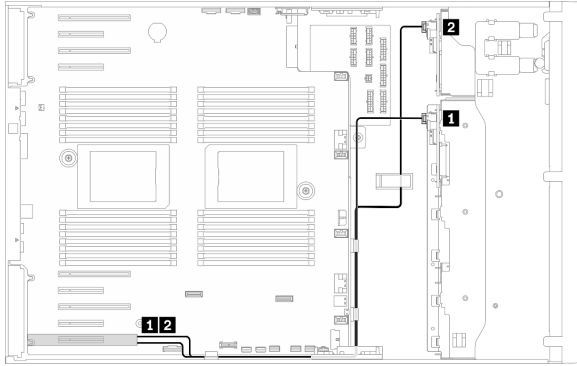


Figure 85. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## 2 x retimers + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

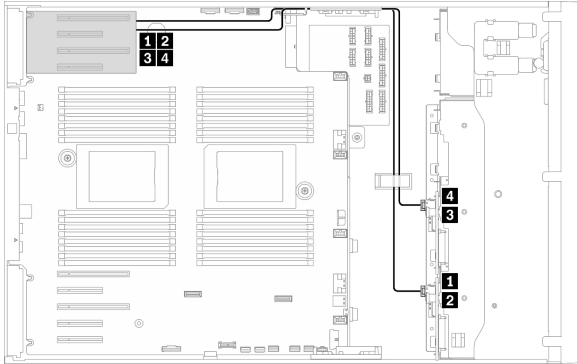


Figure 86. NVMe cable routing to top PCIe zone

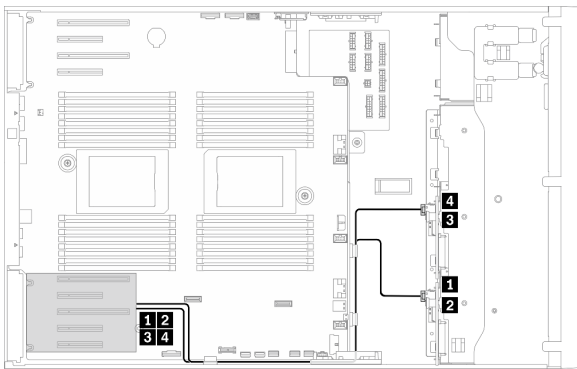


Figure 87. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>4</b> BP2: NVMe 2-3	Retimer: C1	

## SAS/SATA cable routing

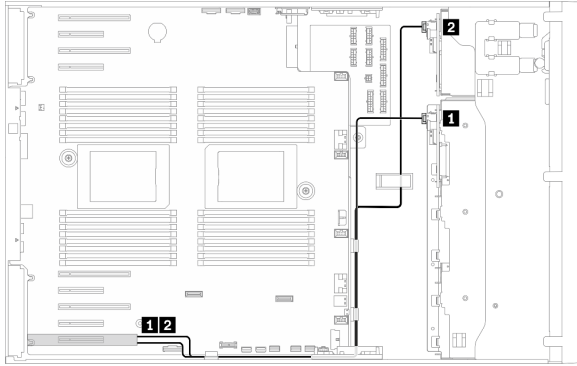


Figure 88. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>3</b> BP3: SAS/SATA	16i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
<b>4</b> BP4: SAS/SATA		

## 2 x retimers + 1 x CFF RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

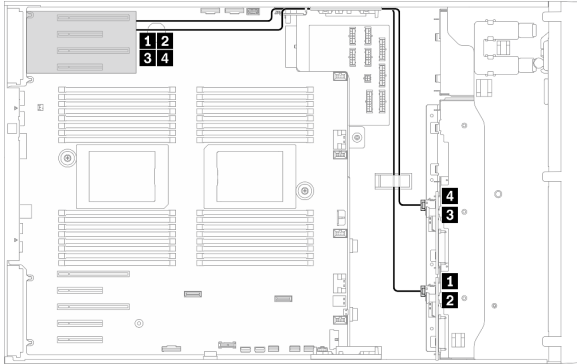


Figure 89. NVMe cable routing to top PCIe zone

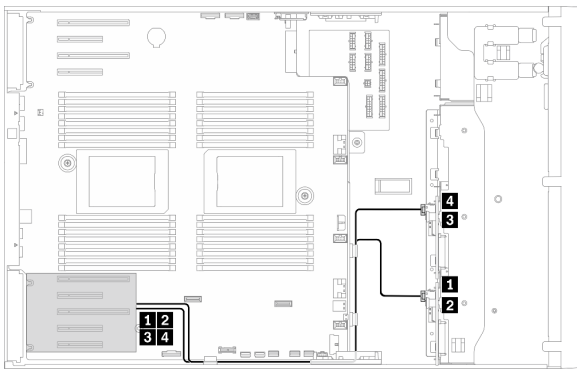


Figure 90. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>4</b> BP2: NVMe 2-3	Retimer: C1	

## SAS/SATA cable routing

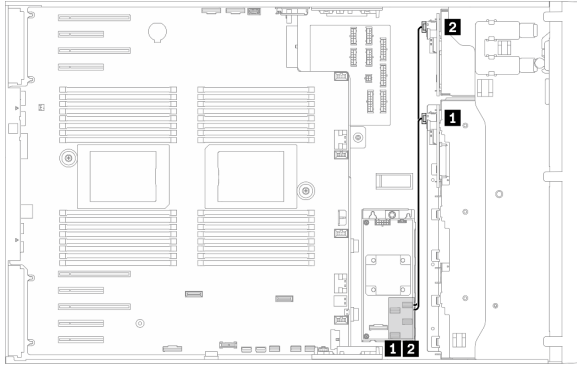


Figure 91. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
<b>3</b> BP3: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (720 mm)
<b>4</b> BP4: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (720 mm)



## 1 x SAS/SATA + 1 x AnyBay backplane

This section lists the required components for server models with 1 x SAS/SATA + 1 x AnyBay 3.5-inch hot-swap backplane.

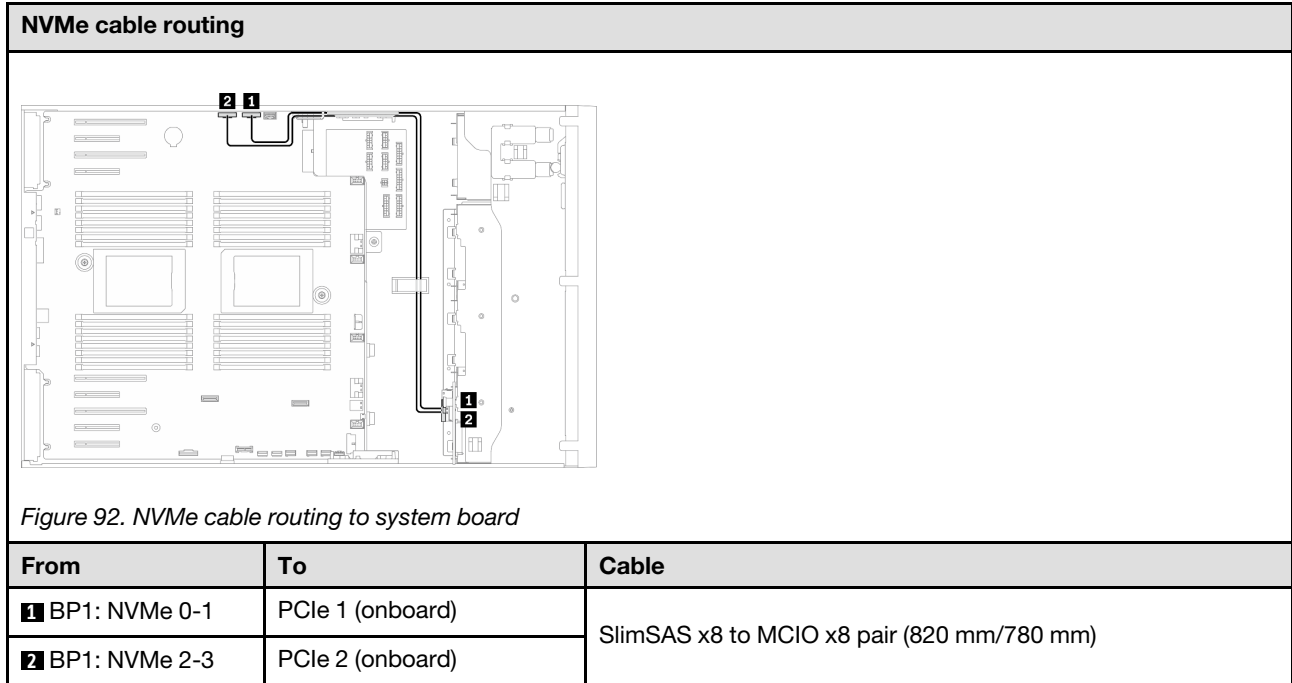
### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 88](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 90](#)
- [“Onboard NVMe + 1 x CFF RAID/HBA” on page 94](#)

## Onboard NVMe + 1 x 8i RAID/HBA



## SAS/SATA cable routing

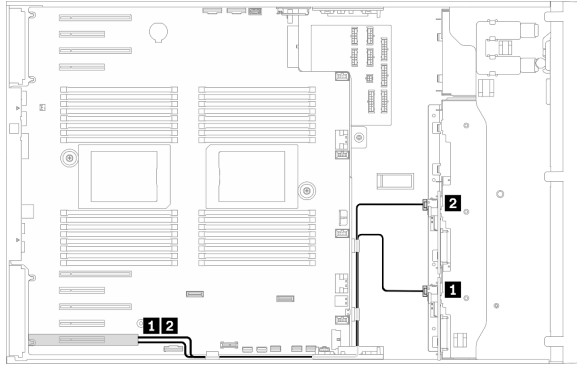
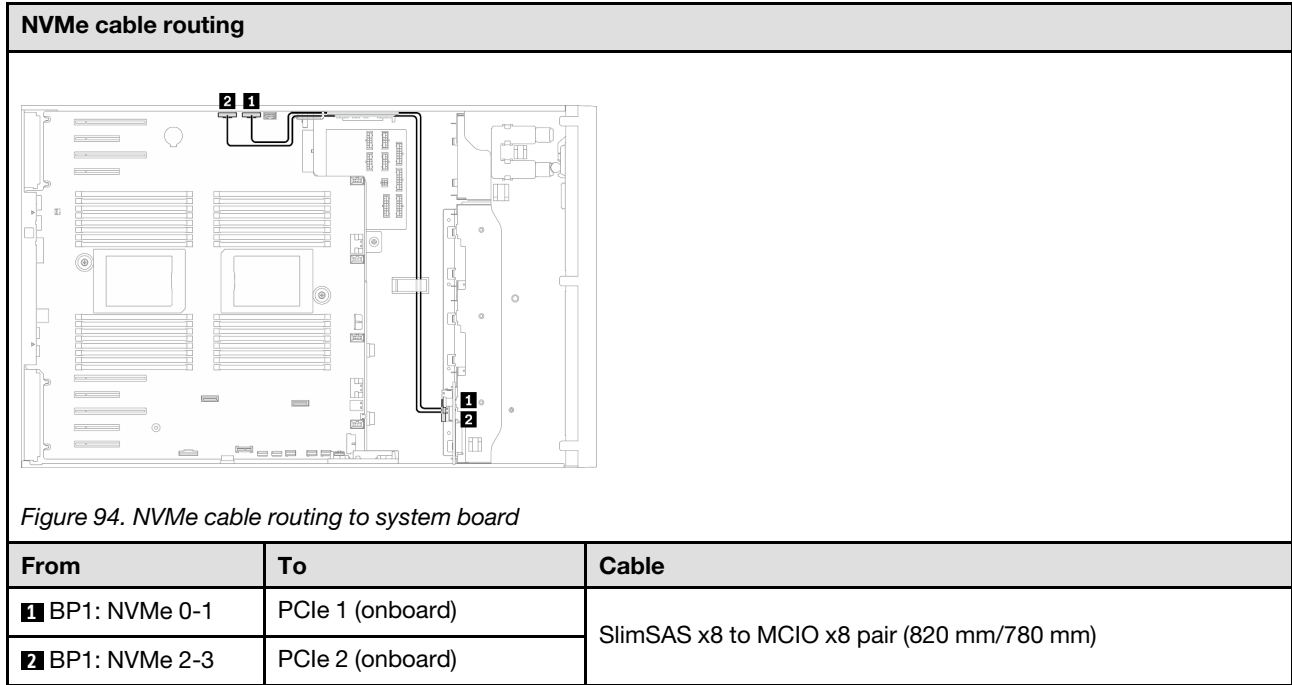


Figure 93. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>

## Onboard NVMe + 1 x 16i RAID/HBA



## SAS/SATA cable routing

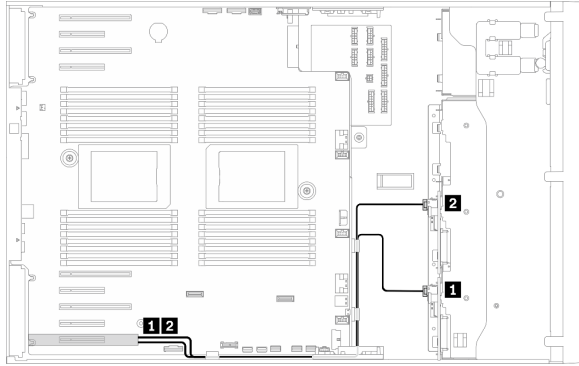
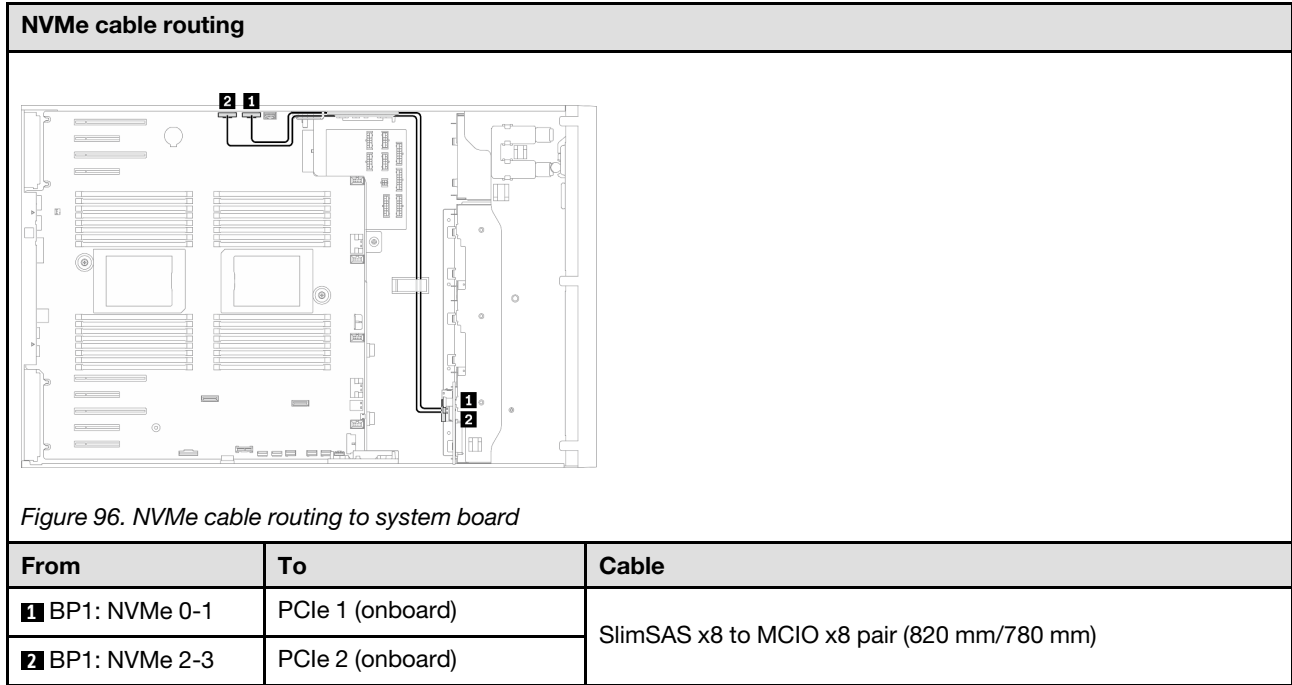


Figure 95. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>

## Onboard NVMe + 1 x 24i RAID/HBA



## SAS/SATA cable routing

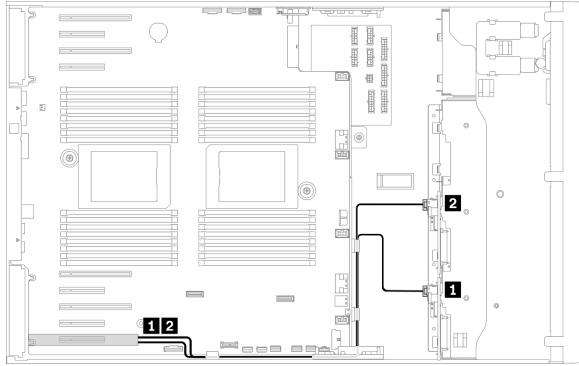
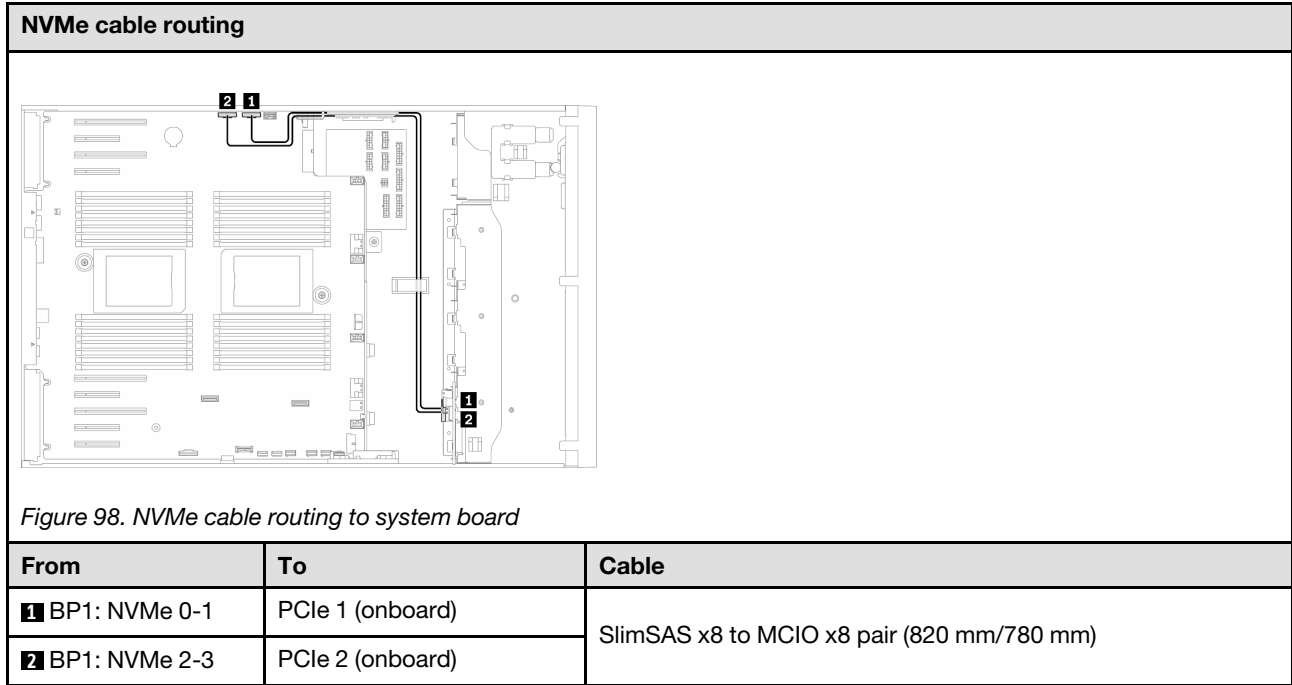


Figure 97. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
<b>2</b> BP2: SAS/SATA		

## Onboard NVMe + 1 x CFF RAID/HBA





## SAS/SATA cable routing

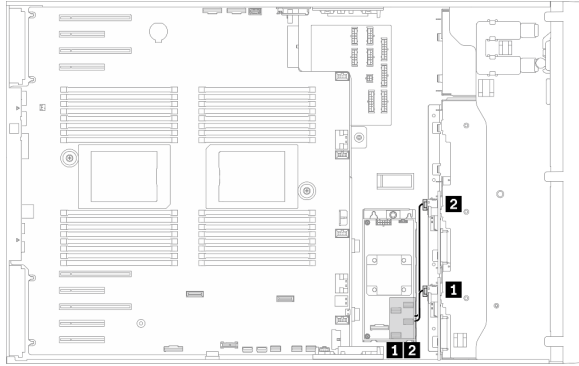


Figure 99. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)

## 1 x SAS/SATA + 2 x AnyBay backplanes

This section lists the required components for server models with 1 x SAS/SATA + 2 x AnyBay 3.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 1 x 8i RAID/HBA” on page 97](#)
- [“Onboard NVMe + 2 x 8i RAID/HBA” on page 99](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 101](#)
- [“Onboard NVMe + 1 x 24i RAID/HBA” on page 103](#)
- [“Onboard NVMe/SATA + 1 x retimer + 1 x 8i RAID/HBA” on page 105](#)
- [“Onboard NVMe + 1 x retimer + 2 x 8i RAID/HBA” on page 107](#)
- [“Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA” on page 109](#)
- [“Onboard NVMe + 1 x retimer + 1 x 24i RAID/HBA” on page 111](#)

## Onboard NVMe/SATA + 1 x 8i RAID/HBA

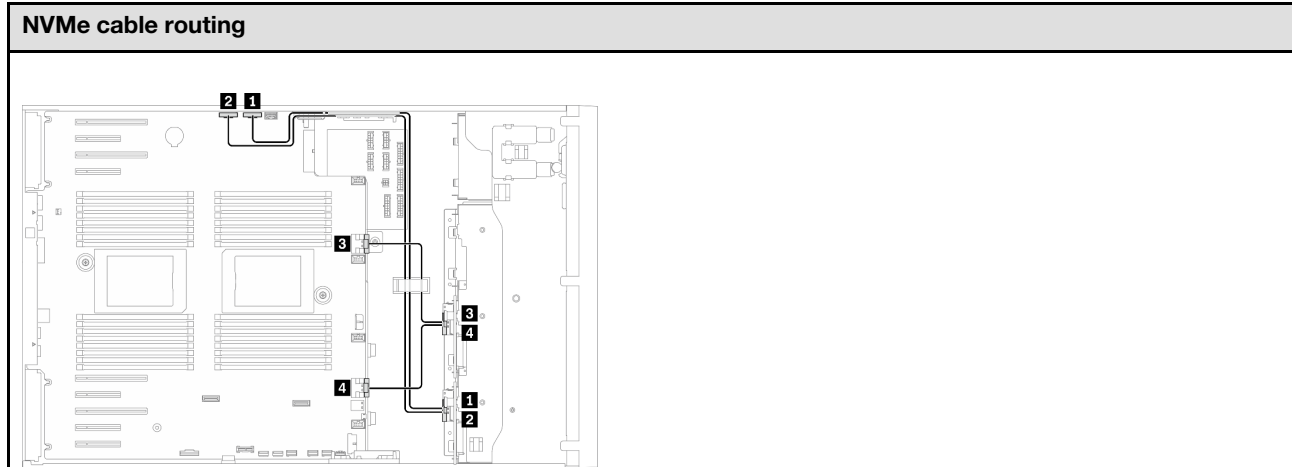


Figure 100. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

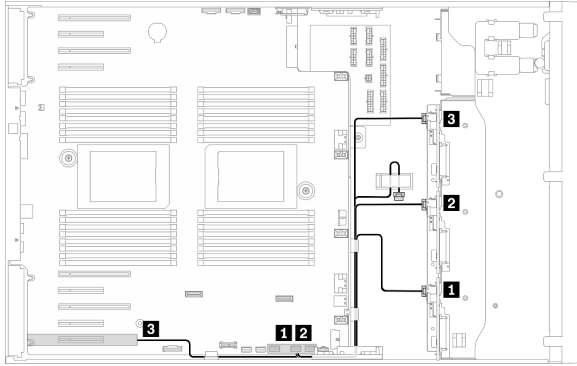


Figure 101. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>2</b> BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 2 x 8i RAID/HBA

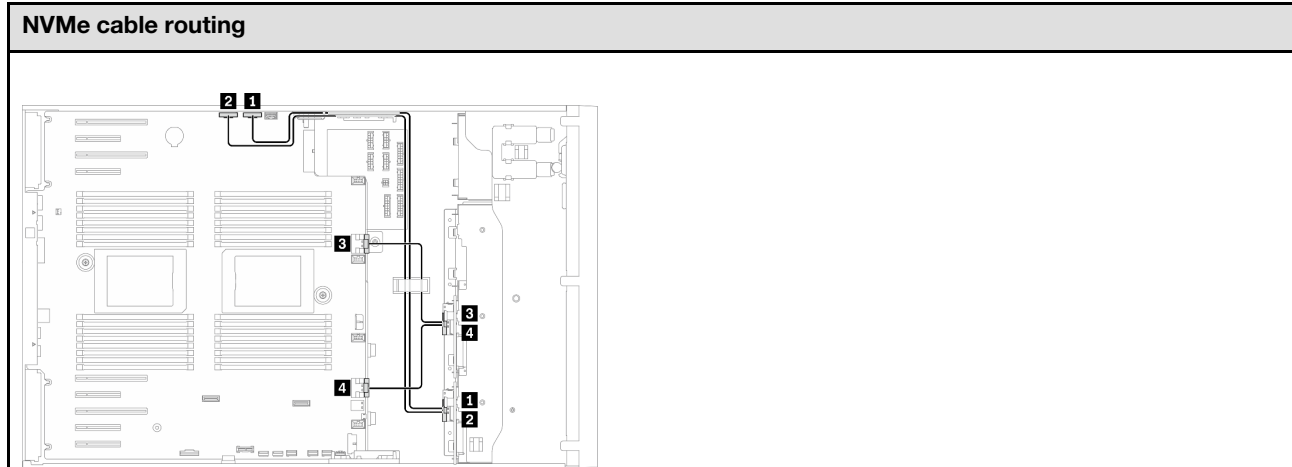


Figure 102. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

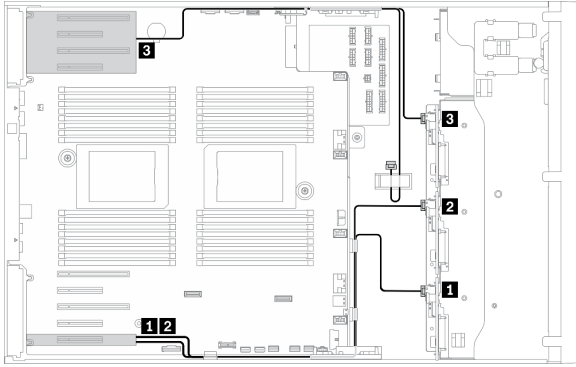


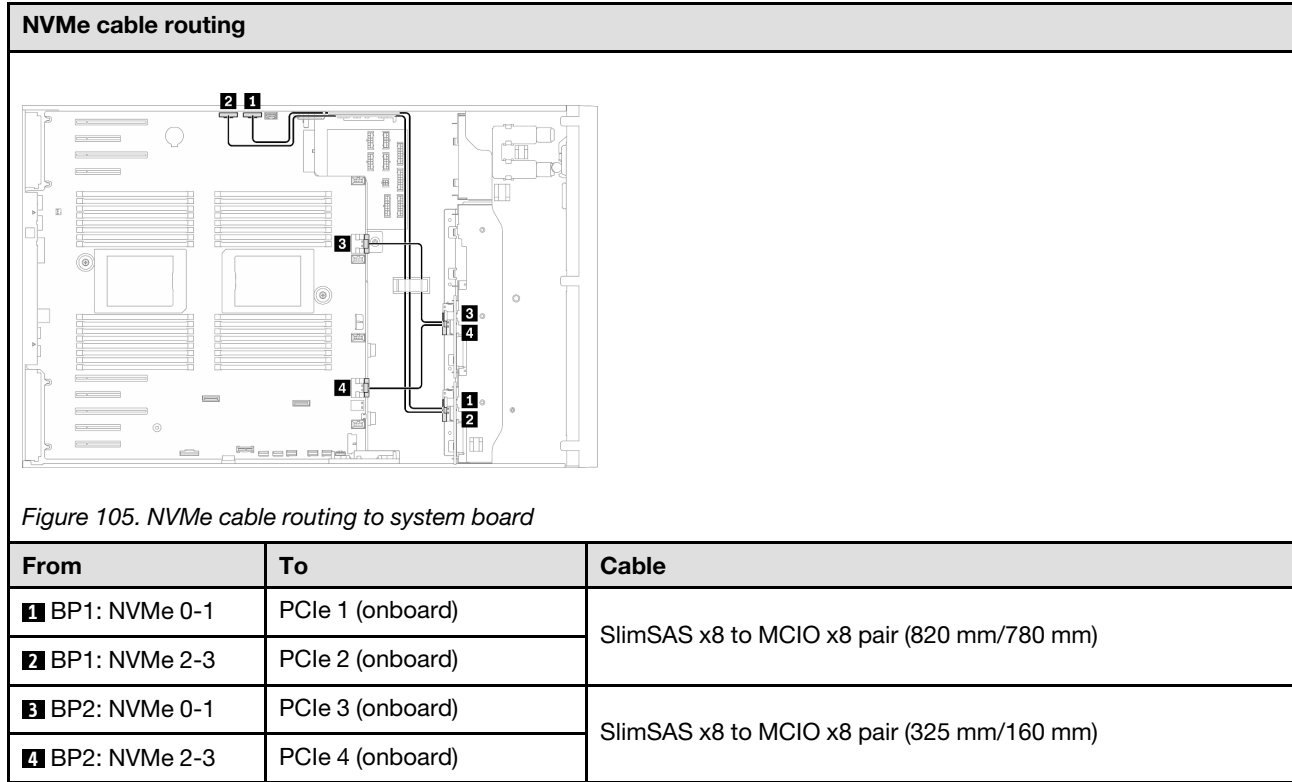
Figure 103. SAS/SATA cable routing to top PCIe zone



Figure 104. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x 16i RAID/HBA



## SAS/SATA cable routing

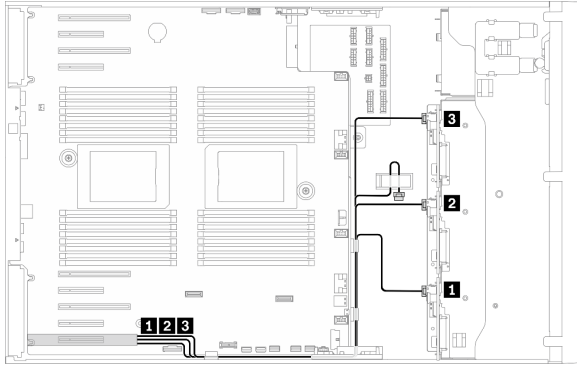
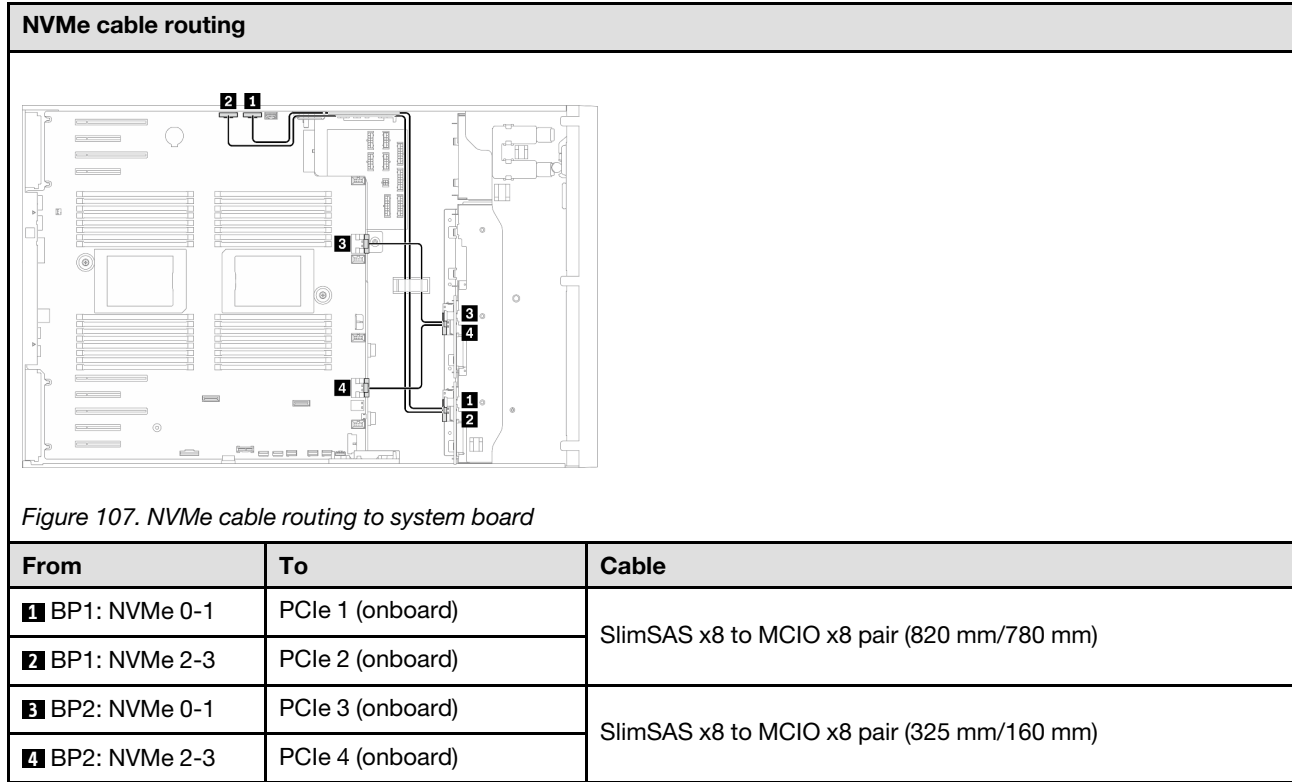


Figure 106. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>



## Onboard NVMe + 1 x 24i RAID/HBA



## SAS/SATA cable routing

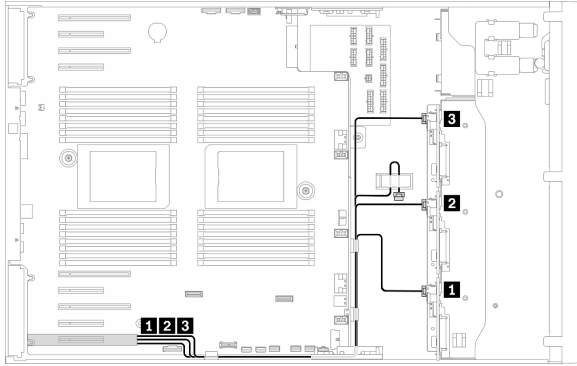


Figure 108. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

## Onboard NVMe/SATA + 1 x retimer + 1 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

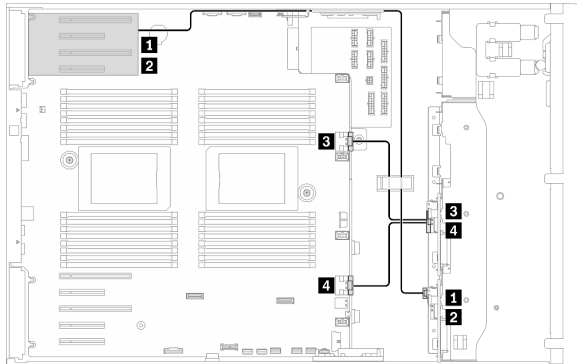


Figure 109. NVMe cable routing to system board and top PCIe zone

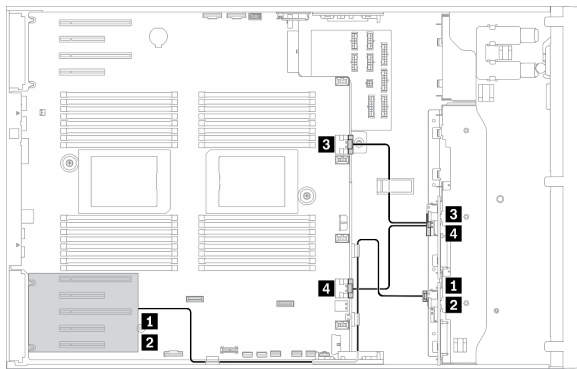


Figure 110. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

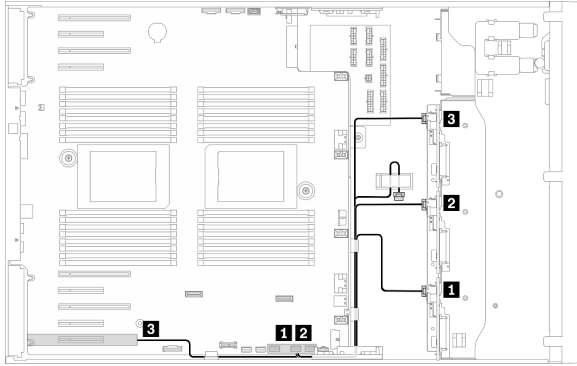


Figure 111. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>2</b> BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x retimer + 2 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

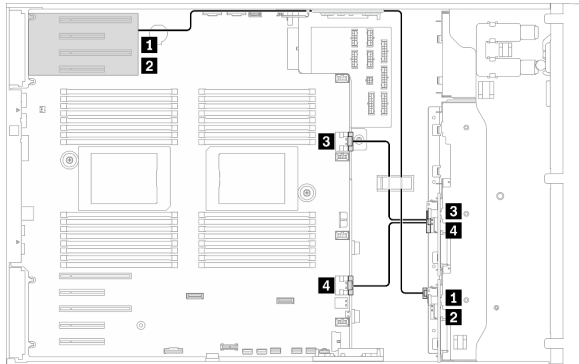


Figure 112. NVMe cable routing to system board and top PCIe zone

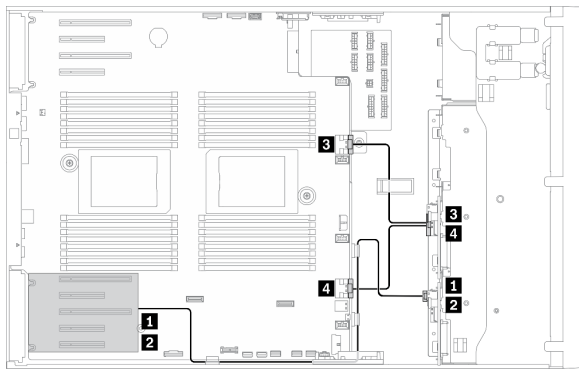


Figure 113. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

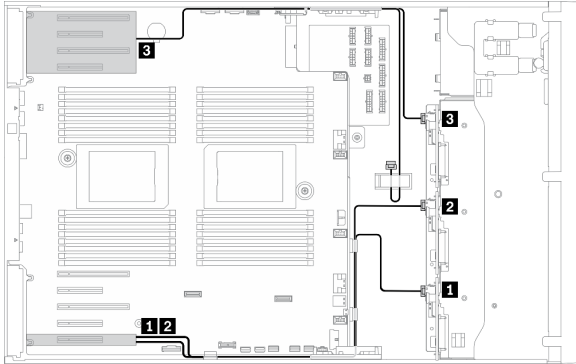


Figure 114. SAS/SATA cable routing to top PCIe zone



Figure 115. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

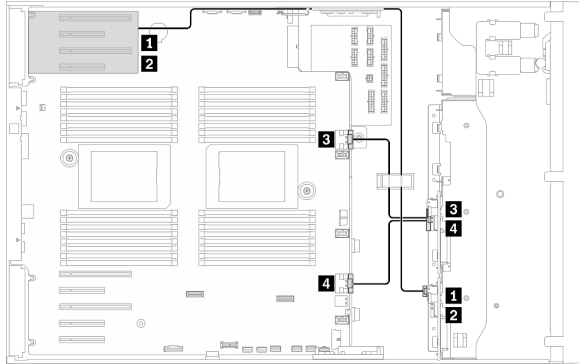


Figure 116. NVMe cable routing to system board and top PCIe zone

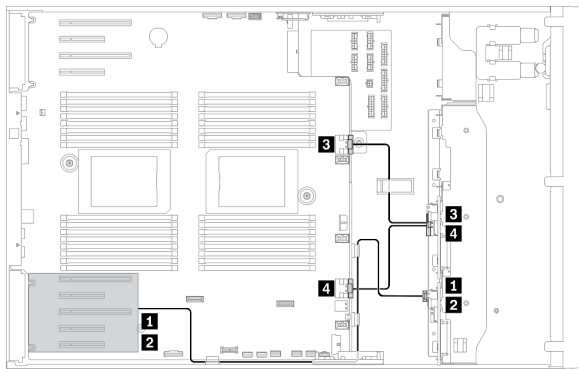


Figure 117. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

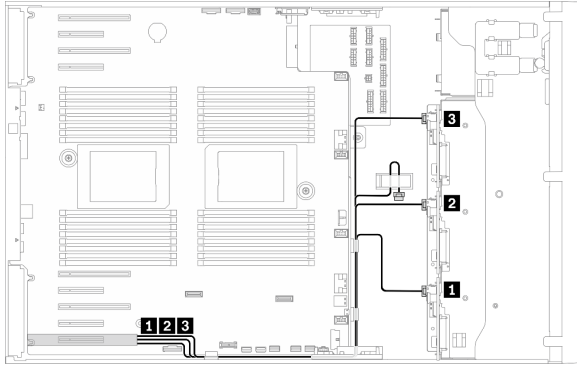


Figure 118. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>



## Onboard NVMe + 1 x retimer + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

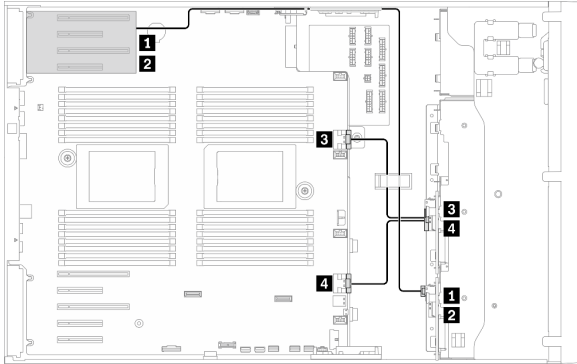


Figure 119. NVMe cable routing to system board and top PCIe zone

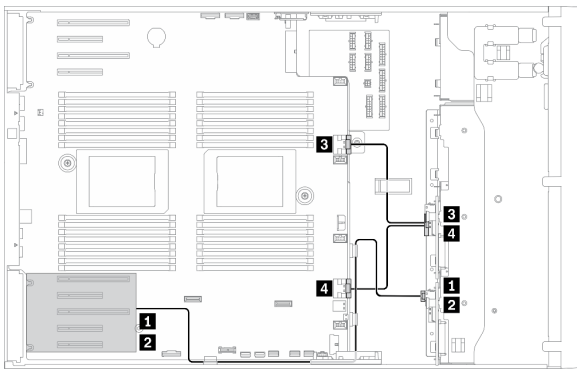


Figure 120. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

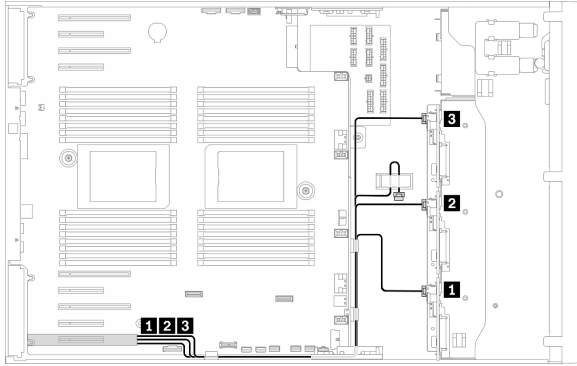


Figure 121. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

## 2 x SAS/SATA + 1 x AnyBay backplane

This section lists the required components for server models with 2 x SAS/SATA + 1 x AnyBay 3.5-inch hot-swap backplane.

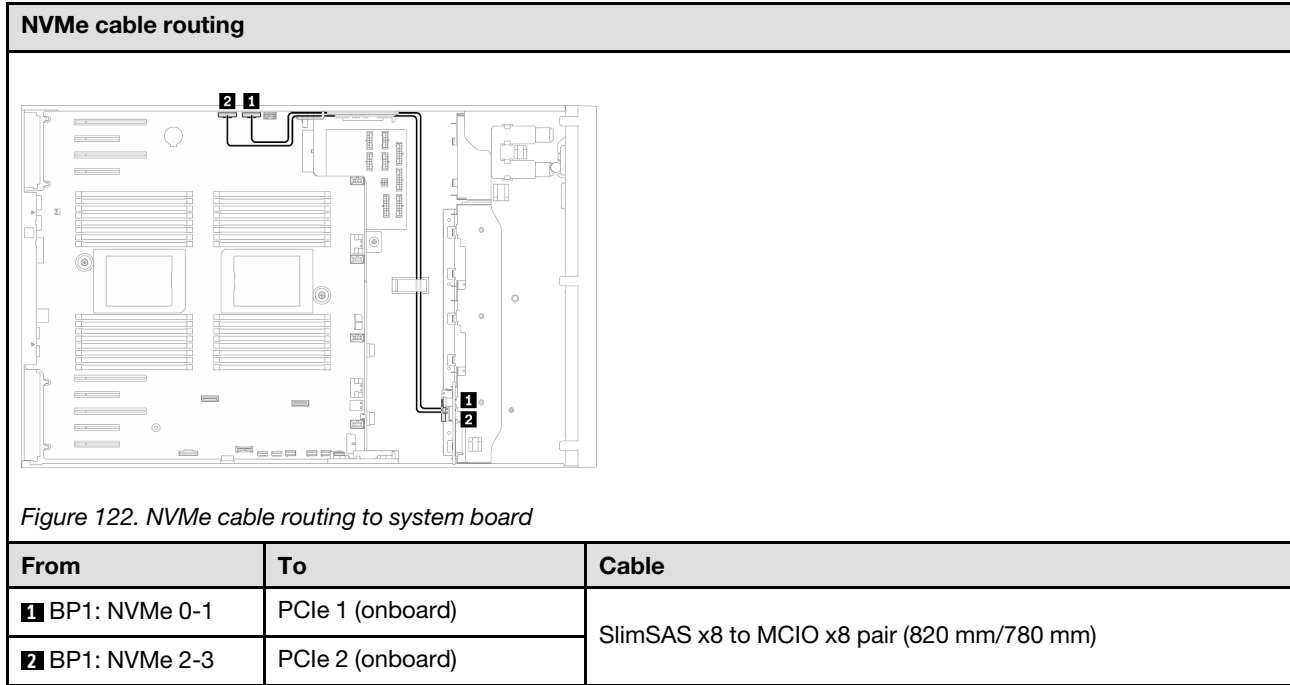
### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 1 x 8i RAID/HBA” on page 114](#)
- [“Onboard NVMe + 2 x 8i RAID/HBA” on page 116](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 118](#)
- [“Onboard NVMe + 1 x 24i RAID/HBA” on page 120](#)
- [“Onboard NVMe + 1 x CFF RAID/HBA” on page 122](#)

## Onboard NVMe/SATA + 1 x 8i RAID/HBA



## SAS/SATA cable routing

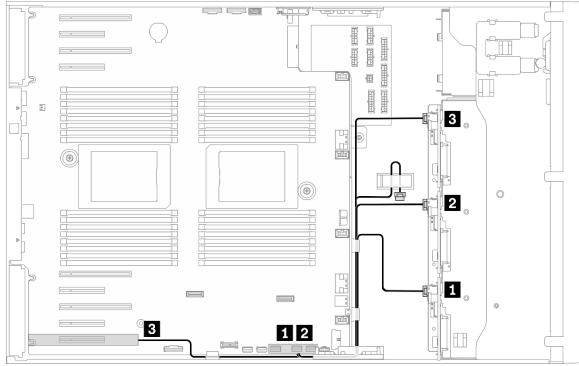
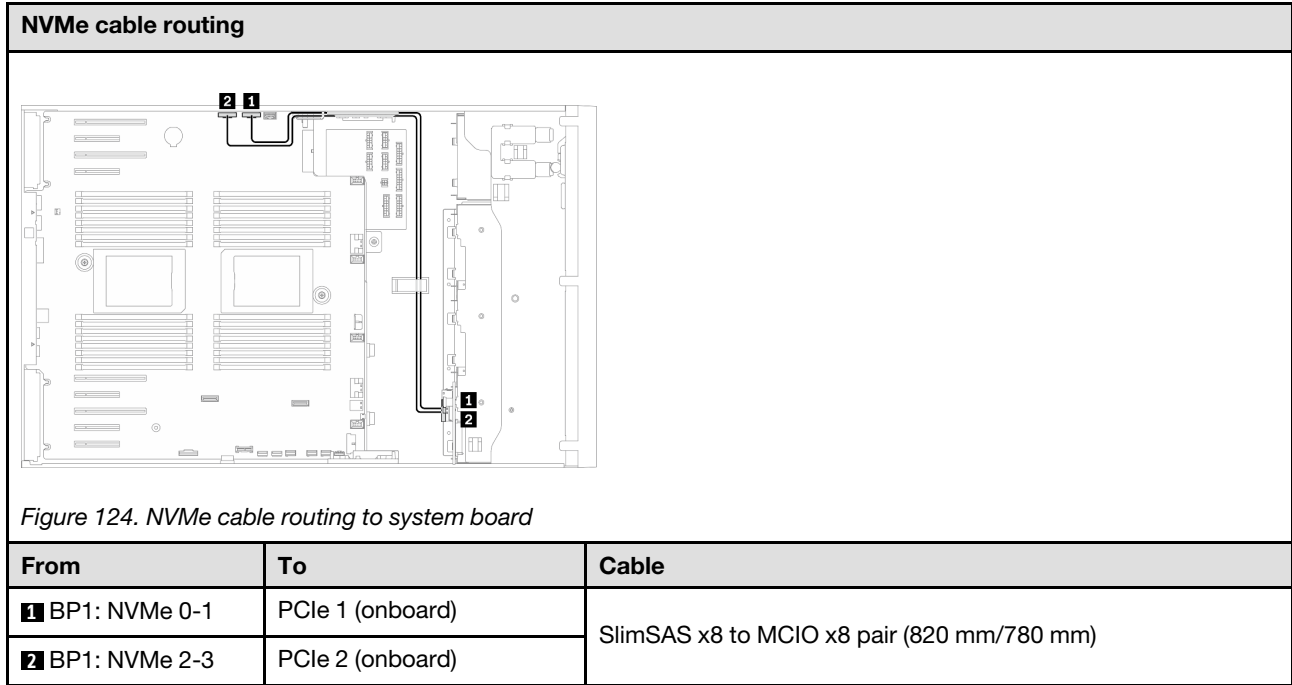


Figure 123. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>2</b> BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 2 x 8i RAID/HBA



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.



Figure 125. SAS/SATA cable routing to top PCIe zone

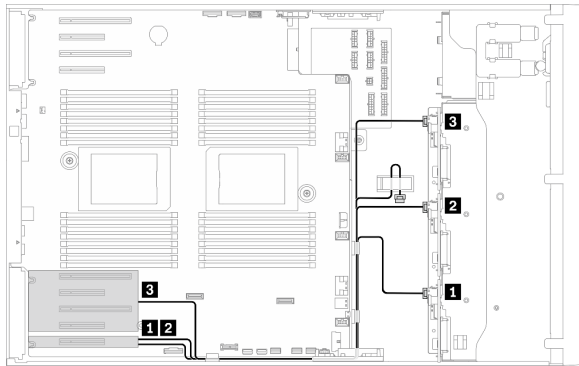
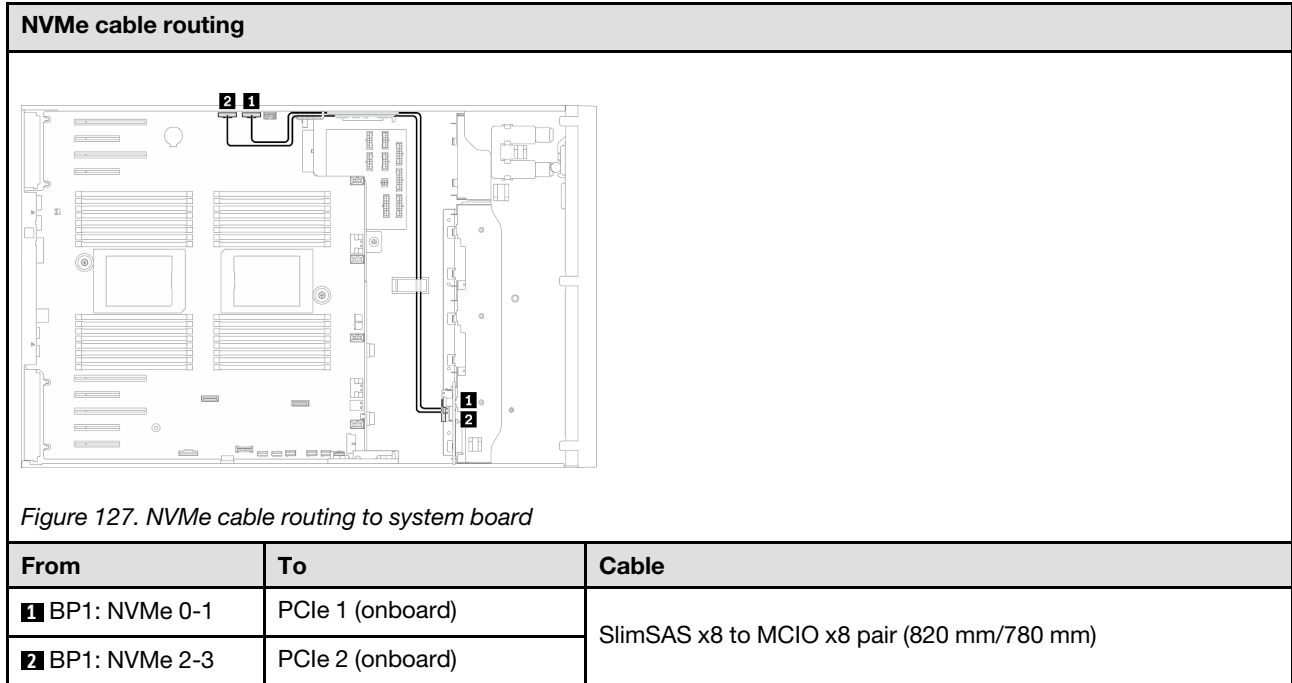


Figure 126. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x 16i RAID/HBA





## SAS/SATA cable routing

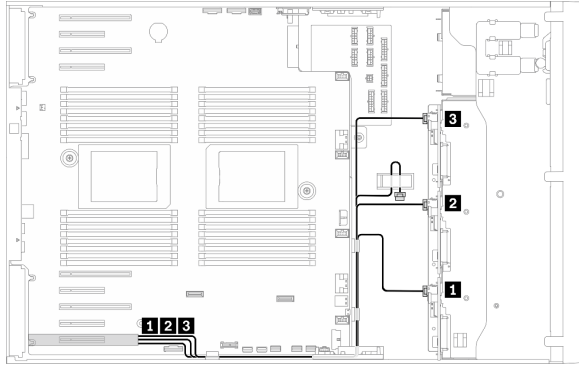
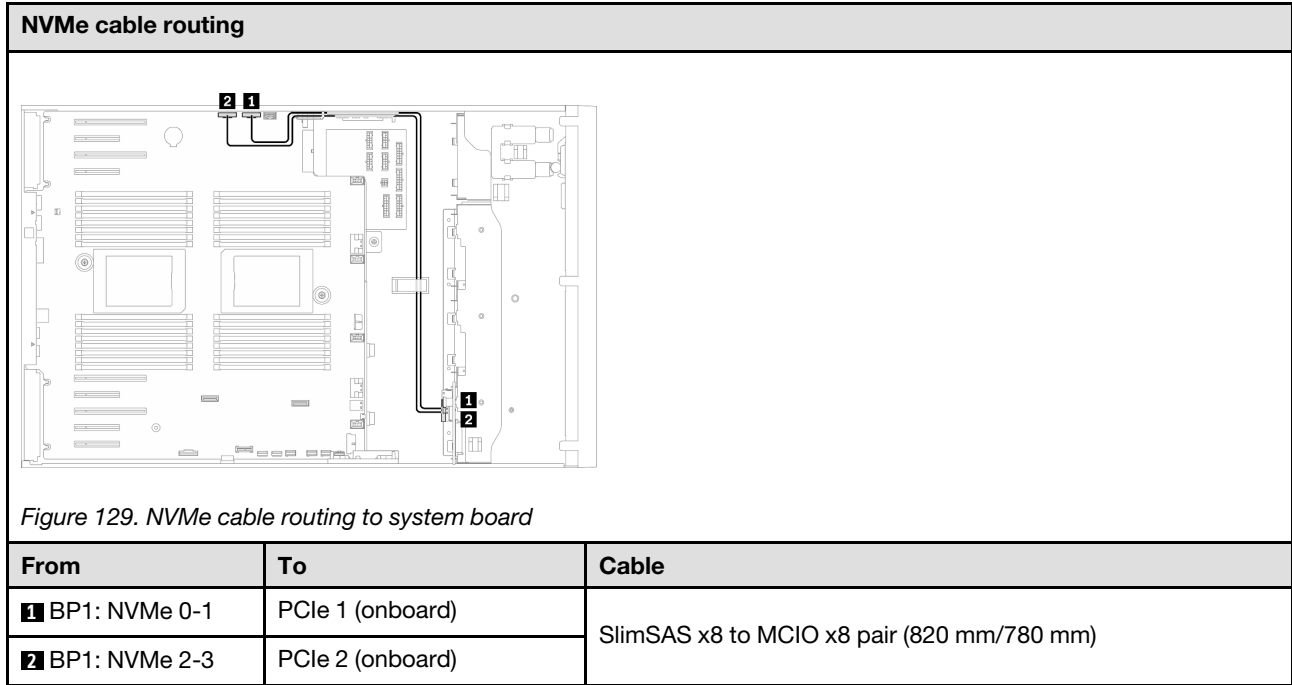


Figure 128. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x 24i RAID/HBA



## SAS/SATA cable routing

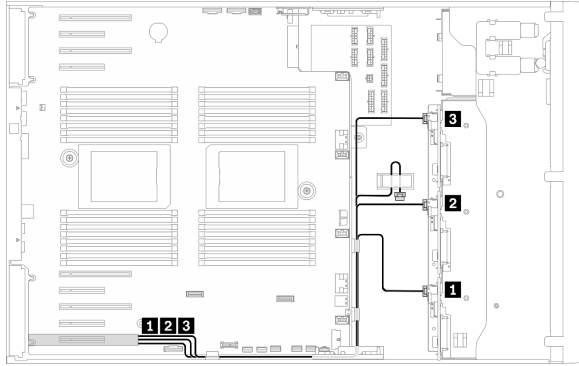
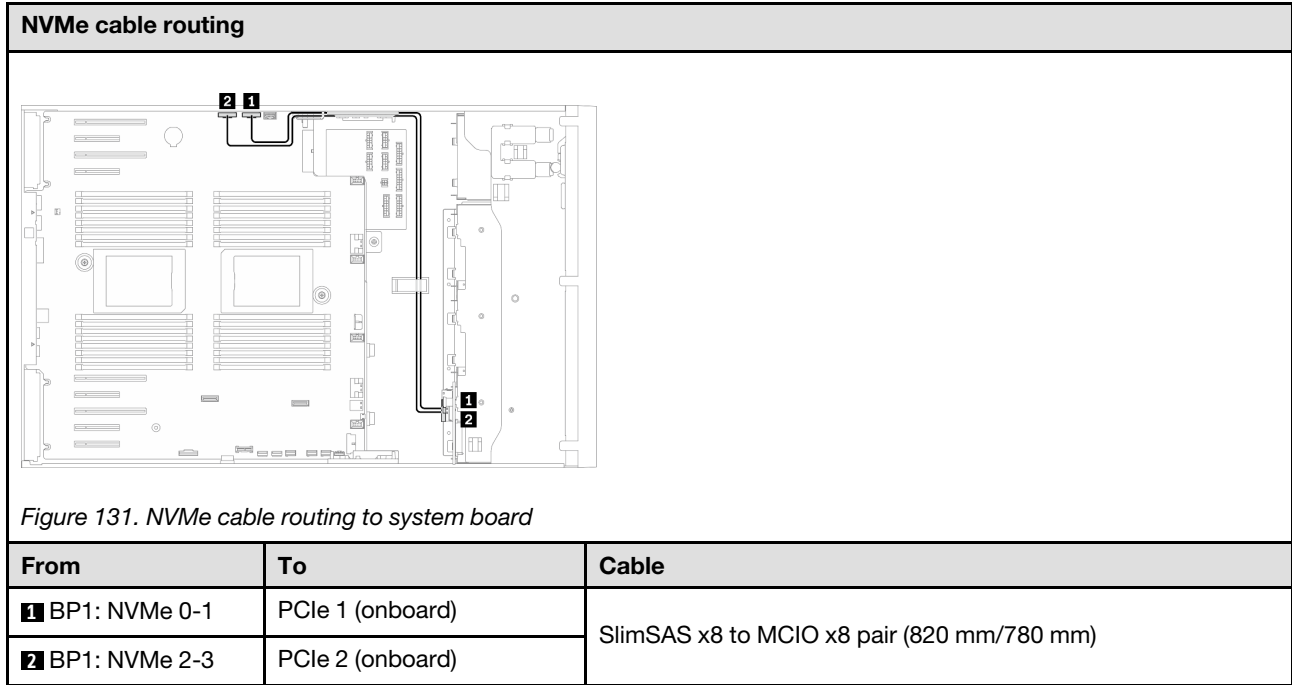


Figure 130. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

## Onboard NVMe + 1 x CFF RAID/HBA



## SAS/SATA cable routing

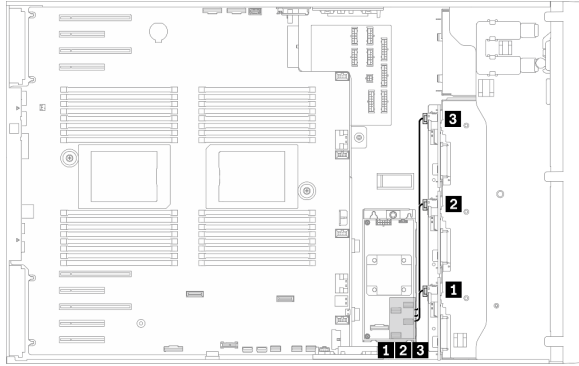


Figure 132. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>3</b> BP3: SAS/SATA	CFF RAID/HBA: C2	SlimSAS x4 to SlimSAS x4 (720 mm)

## 2 x SAS/SATA + 2 x AnyBay backplanes

This section lists the required components for server models with 2 x SAS/SATA + 2 x AnyBay 3.5-inch hot-swap backplanes.

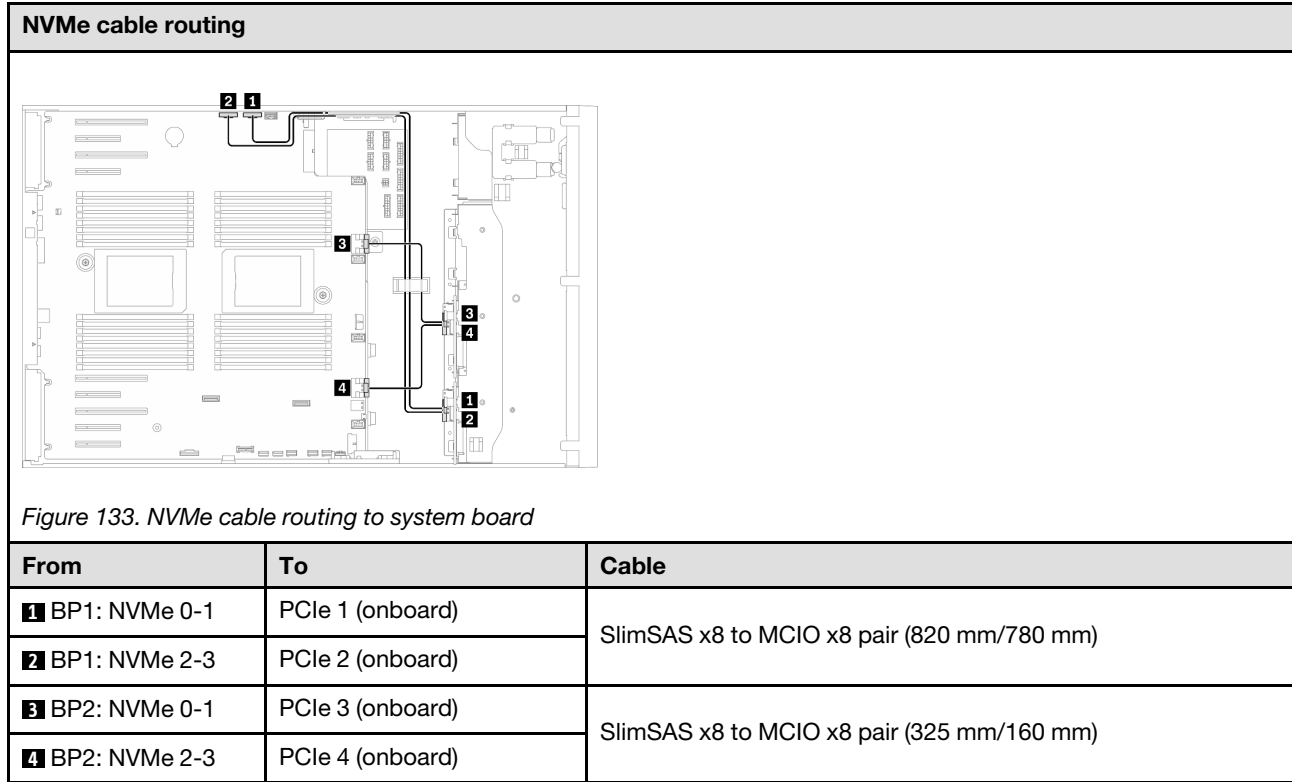
### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 1 x 8i RAID/HBA” on page 125](#)
- [“Onboard NVMe + 2 x 8i RAID/HBA” on page 127](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 129](#)
- [“Onboard NVMe + 1 x 24i RAID/HBA” on page 131](#)
- [“Onboard NVMe/SATA + 1 x retimer + 1 x 8i RAID/HBA” on page 133](#)
- [“Onboard NVMe + 1 x retimer + 2 x 8i RAID/HBA” on page 135](#)
- [“Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA” on page 137](#)
- [“Onboard NVMe + 1 x retimer + 1 x 24i RAID/HBA” on page 139](#)
- [“Onboard SATA + 2 x retimers + 1 x 8i RAID/HBA” on page 141](#)
- [“2 x retimers + 2 x 8i RAID/HBA” on page 143](#)
- [“2 x retimers + 1 x 16i RAID/HBA” on page 145](#)
- [“2 x retimers + 1 x 24i RAID/HBA” on page 147](#)
- [“2 x retimers + 1 x CFF RAID/HBA” on page 149](#)

## Onboard NVMe/SATA + 1 x 8i RAID/HBA



## SAS/SATA cable routing

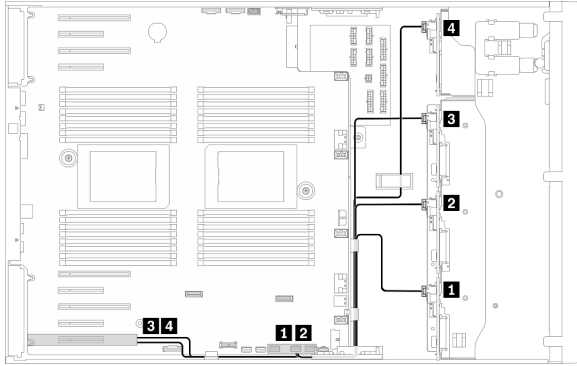


Figure 134. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>2</b> BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>



## Onboard NVMe + 2 x 8i RAID/HBA

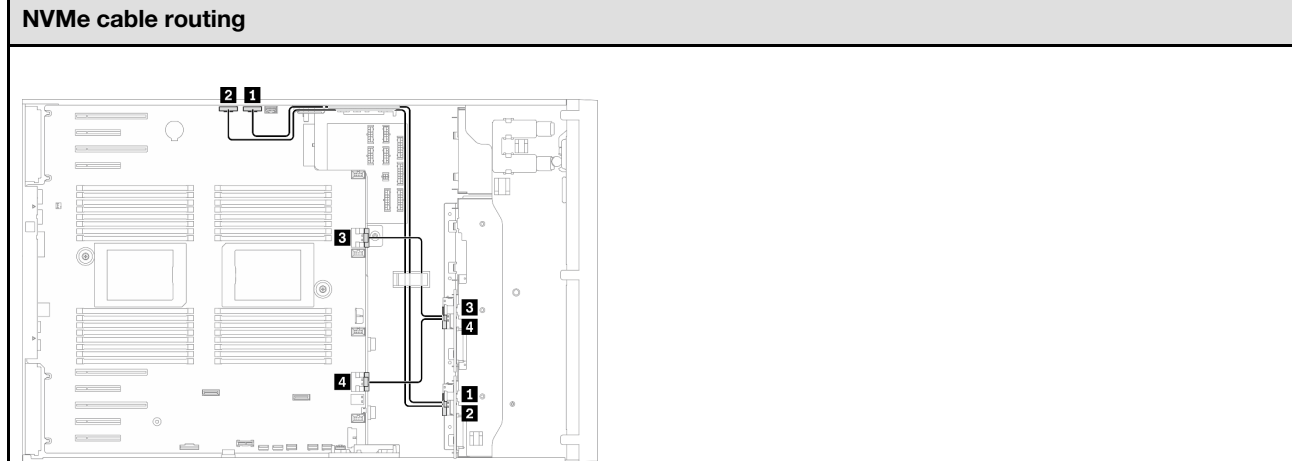


Figure 135. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

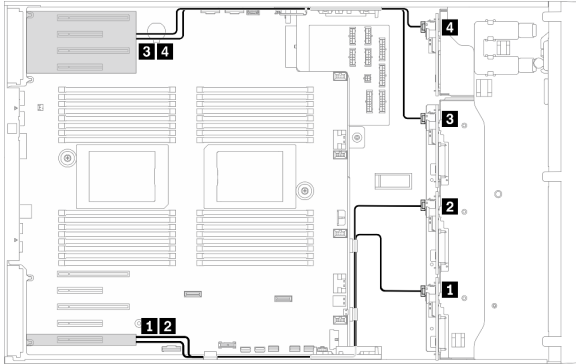


Figure 136. SAS/SATA cable routing to top PCIe zone



Figure 137. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA		

## Onboard NVMe + 1 x 16i RAID/HBA

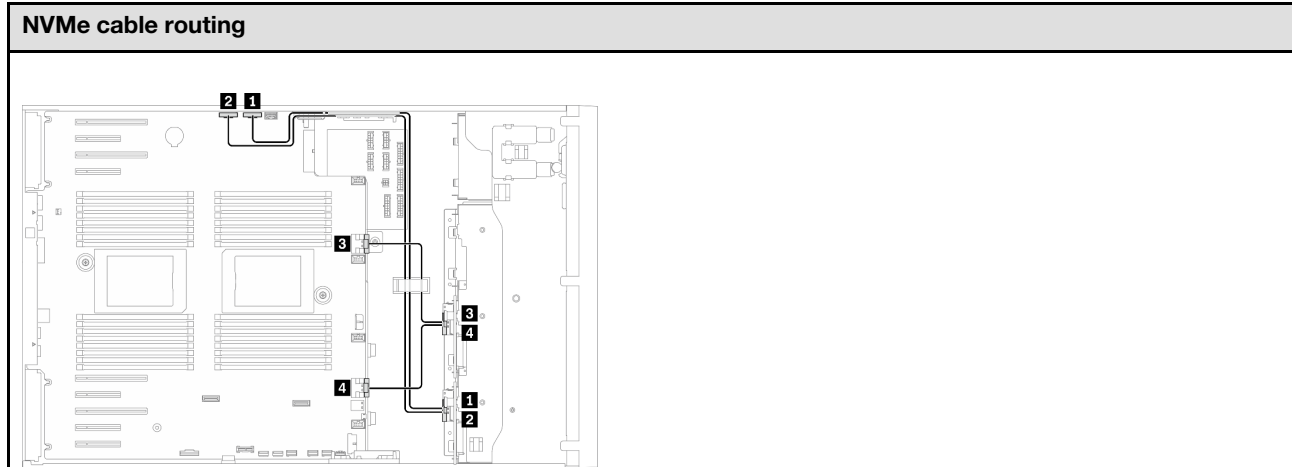


Figure 138. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

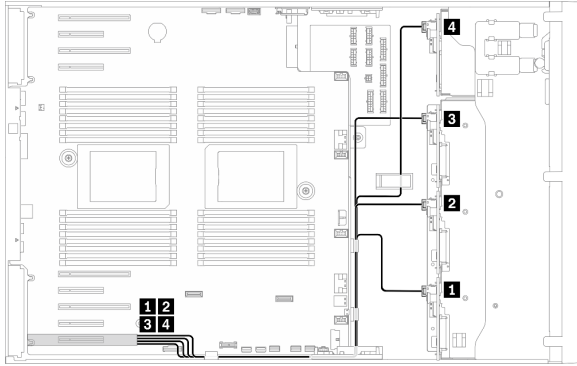
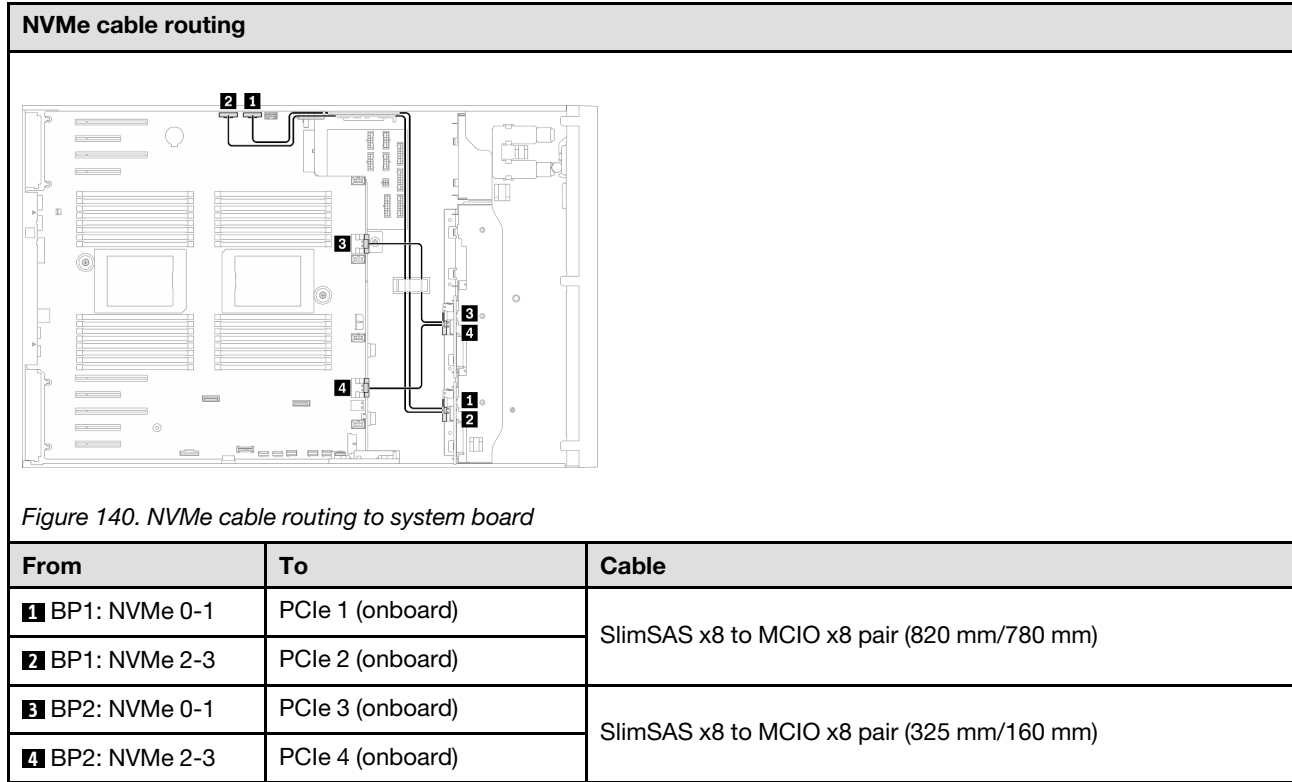


Figure 139. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x 24i RAID/HBA



## SAS/SATA cable routing

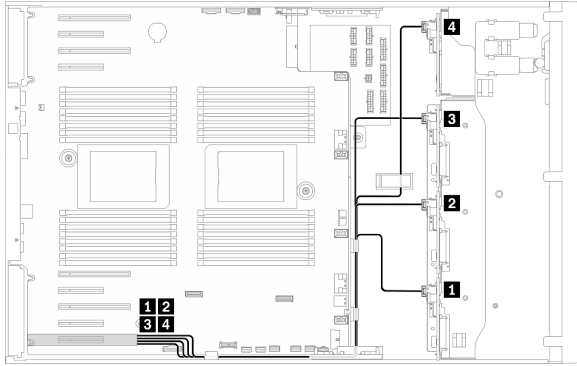


Figure 141. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
<b>4</b> BP4: SAS/SATA		

## Onboard NVMe/SATA + 1 x retimer + 1 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

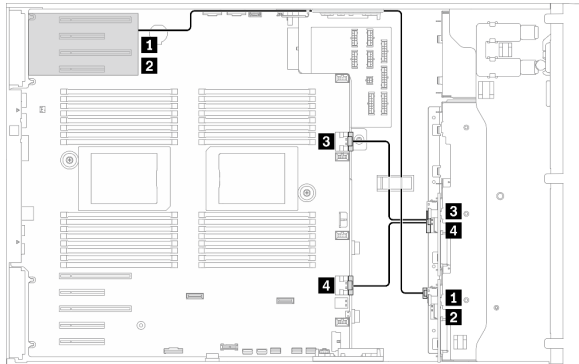


Figure 142. NVMe cable routing to system board and top PCIe zone

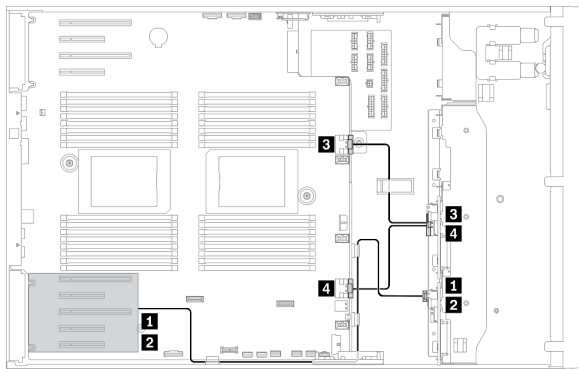


Figure 143. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

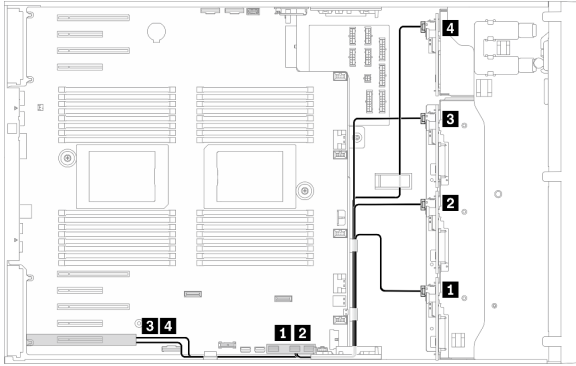


Figure 144. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>2</b> BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA		



## Onboard NVMe + 1 x retimer + 2 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

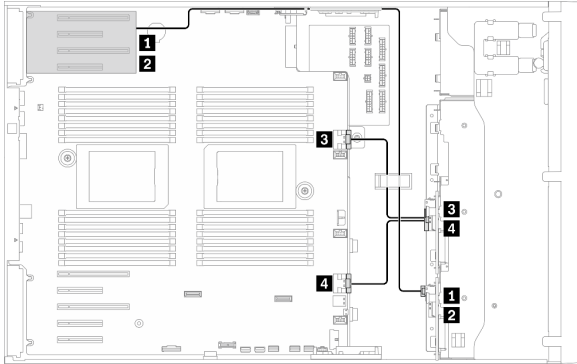


Figure 145. NVMe cable routing to system board and top PCIe zone

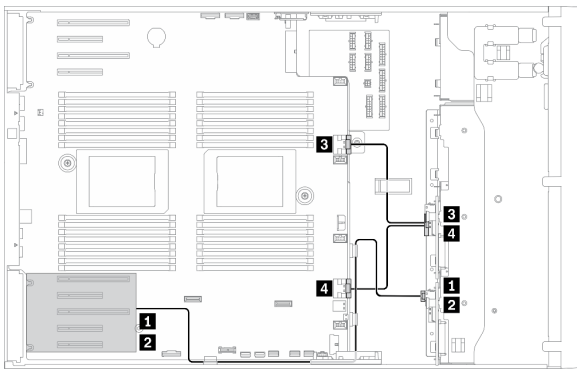


Figure 146. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

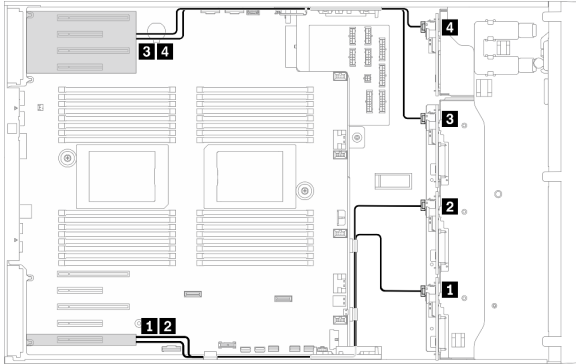


Figure 147. SAS/SATA cable routing to top PCIe zone



Figure 148. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

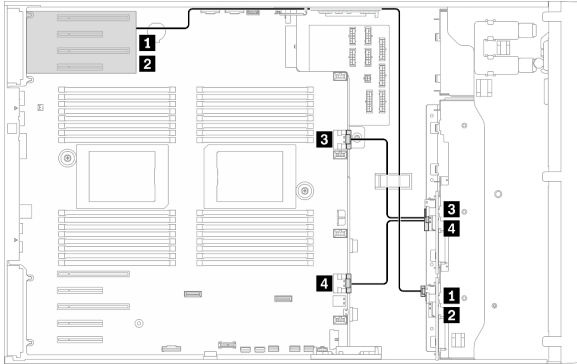


Figure 149. NVMe cable routing to system board and top PCIe zone

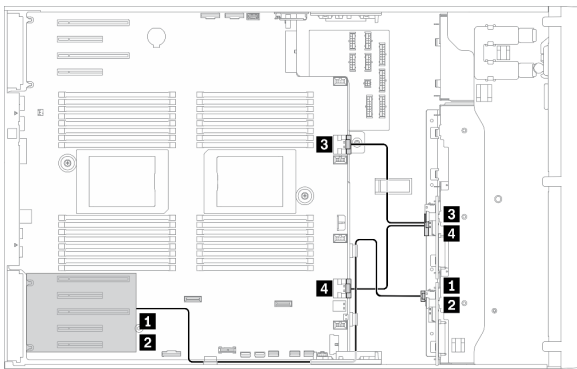


Figure 150. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

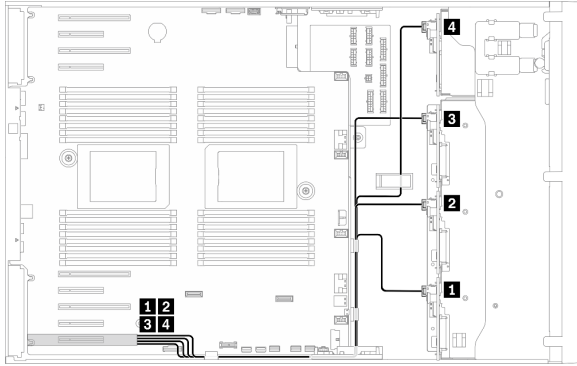


Figure 151. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## Onboard NVMe + 1 x retimer + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.



Figure 152. NVMe cable routing to system board and top PCIe zone

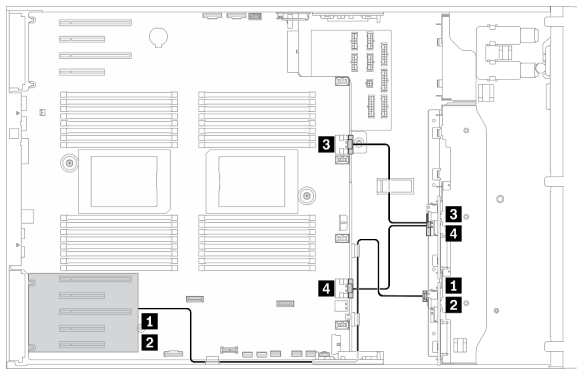


Figure 153. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
<b>4</b> BP2: NVMe 2-3	PCIe 4 (onboard)	

## SAS/SATA cable routing

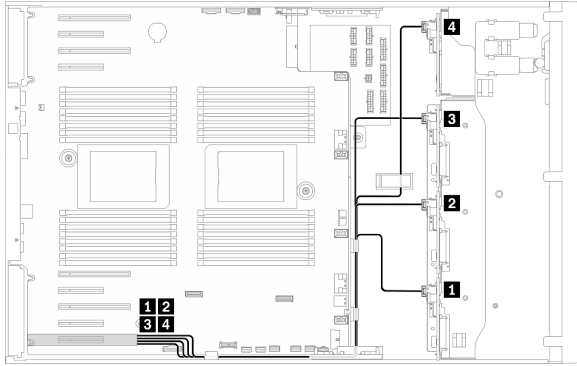


Figure 154. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
<b>4</b> BP4: SAS/SATA		

## Onboard SATA + 2 x retimers + 1 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

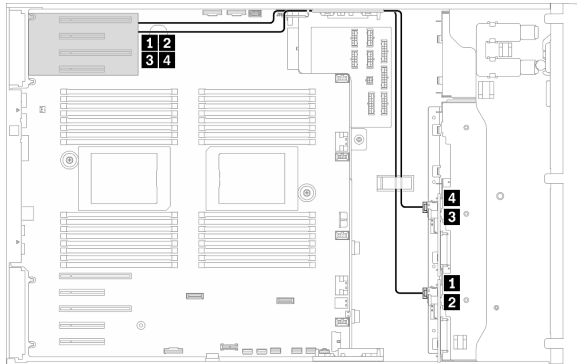


Figure 155. NVMe cable routing to top PCIe zone

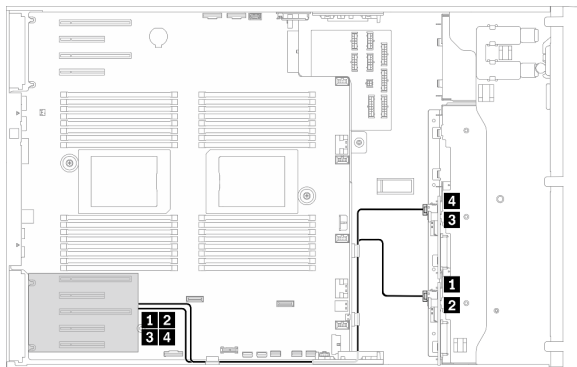


Figure 156. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>4</b> BP2: NVMe 2-3	Retimer: C1	

## SAS/SATA cable routing

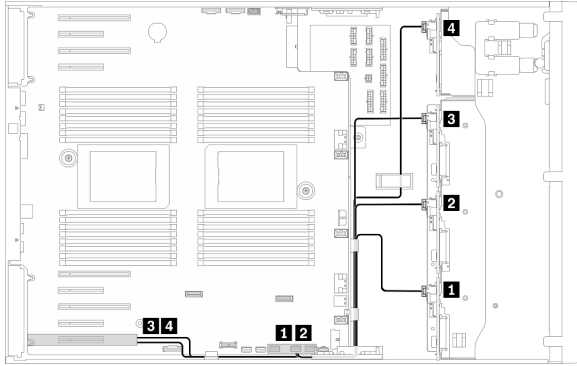


Figure 157. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>2</b> BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>



## 2 x retimers + 2 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.



Figure 158. NVMe cable routing to top PCIe zone

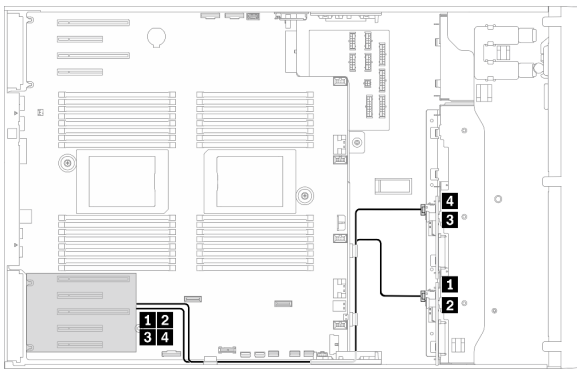


Figure 159. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>4</b> BP2: NVMe 2-3	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

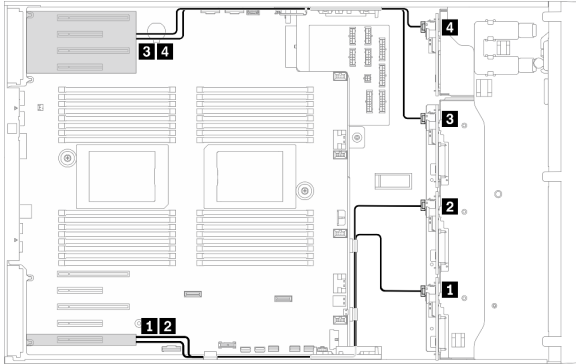


Figure 160. SAS/SATA cable routing to top PCIe zone



Figure 161. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## 2 x retimers + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

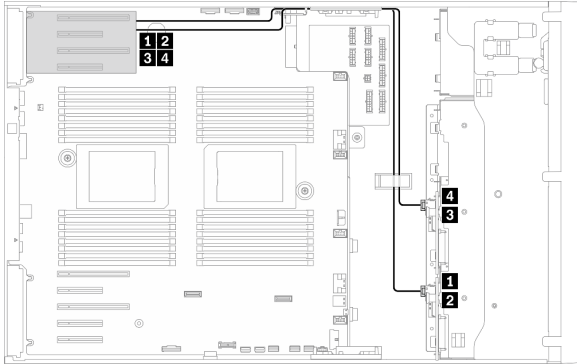


Figure 162. NVMe cable routing to top PCIe zone

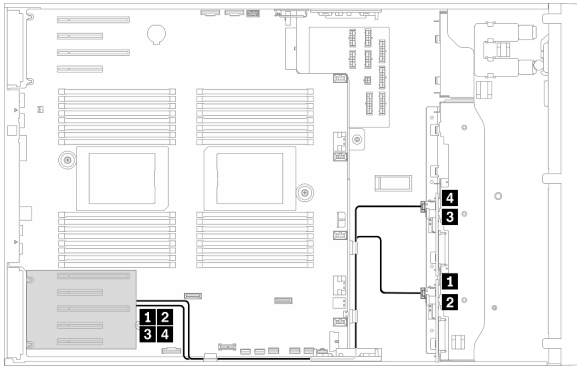


Figure 163. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>4</b> BP2: NVMe 2-3	Retimer: C1	

## SAS/SATA cable routing

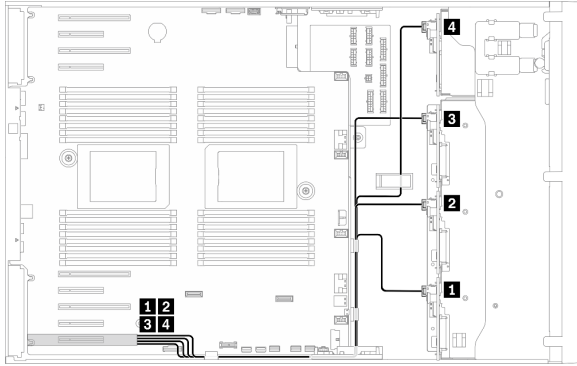


Figure 164. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)</li> </ul>

## 2 x retimers + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

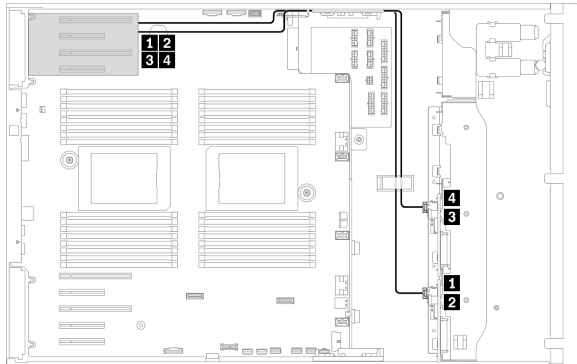


Figure 165. NVMe cable routing to top PCIe zone

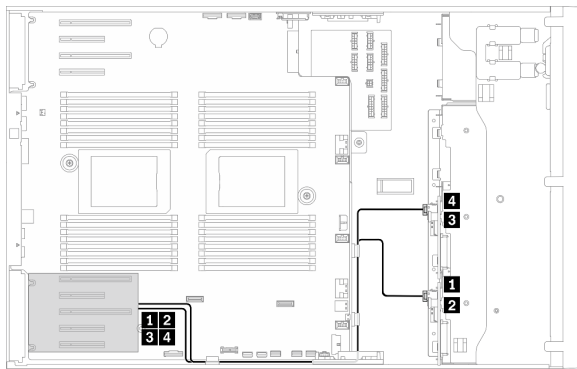


Figure 166. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>4</b> BP2: NVMe 2-3	Retimer: C1	

## SAS/SATA cable routing

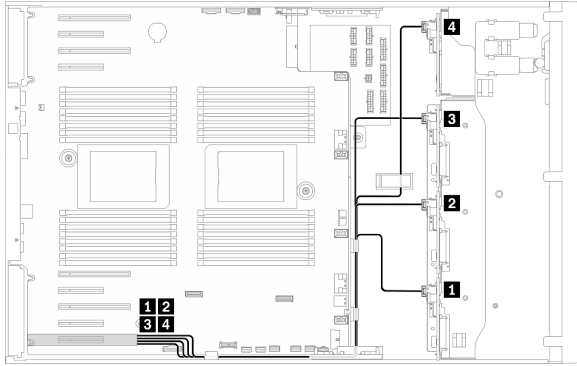


Figure 167. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
<b>2</b> BP2: SAS/SATA		
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
<b>4</b> BP4: SAS/SATA		

## 2 x retimers + 1 x CFF RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

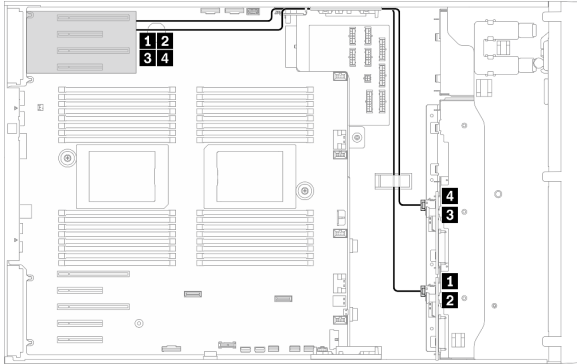


Figure 168. NVMe cable routing to top PCIe zone

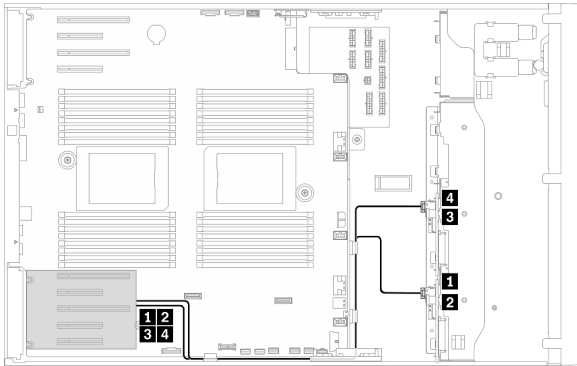


Figure 169. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
<b>4</b> BP2: NVMe 2-3	Retimer: C1	

## SAS/SATA cable routing

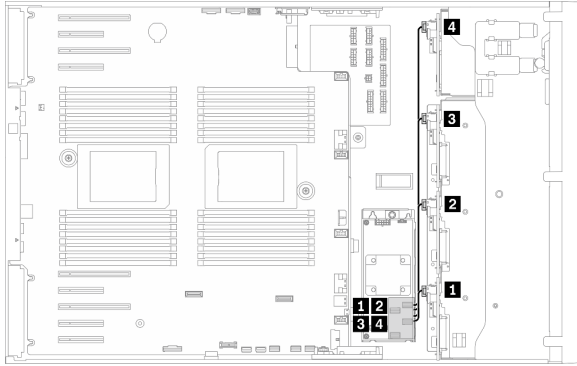


Figure 170. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)
<b>3</b> BP3: SAS/SATA	CFF RAID/HBA: C2	SlimSAS x4 to SlimSAS x4 (720 mm)
<b>4</b> BP4: SAS/SATA	CFF RAID/HBA: C3	SlimSAS x4 to SlimSAS x4 (720 mm)



## Chapter 3. 2.5-inch hot-swap drive backplane cable routing

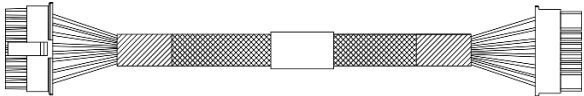
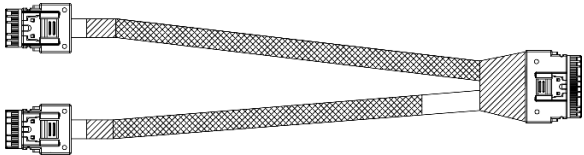
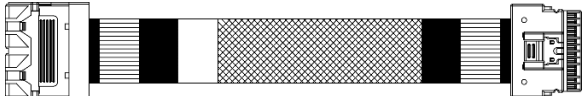
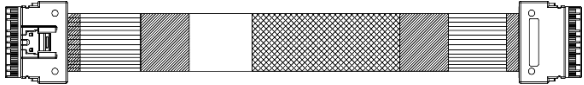
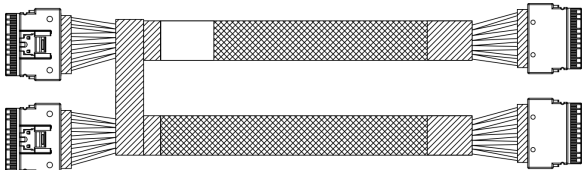
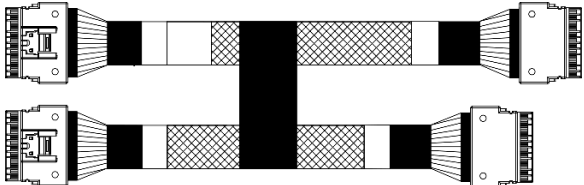
Use the section to understand the cable routing for 2.5-inch hot-swap drive backplane.

### Backplane cable list

Use this section to identify each of the cables that are used in routing the 2.5-inch hot-swap drive backplane for your server.

#### 2.5-inch backplane cable list

Table 5. 2.5-inch backplane cable list

Cable	Description
<p>2.5-inch backplane power cable</p> 	<ul style="list-style-type: none"> <li>• Backplane 1/2 to PDB: 400 mm</li> <li>• Backplane 3/4 to PDB: 300 mm</li> </ul>
<p>SlimSAS x4*2 to SlimSAS x8 cable</p> 	<ul style="list-style-type: none"> <li>• Backplane 1/3 to SATA port on system board: 430 mm/430 mm</li> <li>• Backplane 1/2 to CFF 16i RAID/HBA Gen 4: 260 mm/260 mm</li> <li>• Backplane 3/4 to CFF 16i RAID/HBA Gen 4: 430 mm/430 mm</li> </ul>
<p>Mini-SAS x4*2 to SlimSAS x8 cable</p> 	<ul style="list-style-type: none"> <li>• Backplane 1/2/3/4 to 8i RAID/HBA Gen 3 or 16i RAID/HBA Gen 3</li> <li>• Backplane 1/2 to 24i RAID/HBA Gen 3: 640 mm</li> <li>• Backplane 3/4 to 24i RAID/HBA Gen 3: 930 mm</li> </ul>
<p>SlimSAS x8 to SlimSAS x8 cable</p> 	<ul style="list-style-type: none"> <li>• Backplane 1/2/3/4 to 8i RAID/HBA Gen 4 or 16i RAID/HBA Gen 4: 720 mm</li> <li>• Backplane 1/2/3 to 32i RAID/HBA Gen 4: 720 mm</li> <li>• Backplane 4 to 32i RAID/HBA Gen 4: 880 mm</li> </ul>
<p>SlimSAS x8 to SlimSAS x8 cable pair</p> 	<p>Backplane 1/2 to NVMe retimer: 700 mm/700 mm</p>
<p>SlimSAS x8 to SlimSAS x8 cable pair</p> 	<p>From 2.5-inch backplane to PCIe port on system board.</p> <ul style="list-style-type: none"> <li>• Backplane 1 to PCIe 1 (onboard)/2 on system board: 820 mm/780 mm</li> <li>• Backplane 1 to PCIe 3 (onboard)/4 on system board: 325 mm/160 mm</li> </ul>

## Power cable routing

Use the section to understand the power cable routing for 2.5-inch hot-swap drive backplane.

### Notes:

- Connections between connectors; **1**↔**1**, **2**↔**2**, **3**↔**3**, ... **n**↔**n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.

From	To	Cable
<b>1</b> Backplane 1: Power connector	Power distribution board: BP 1 power connector	2.5-inch backplane power (400 mm)
<b>2</b> Backplane 2: Power connector	Power distribution board: BP 2 power connector	2.5-inch backplane power (400 mm)
<b>3</b> Backplane 3: Power connector	Power distribution board: BP 3 power connector	2.5-inch backplane power (300 mm)
<b>4</b> Backplane 4: Power connector	Power distribution board: BP 4 power connector	2.5-inch backplane power (300 mm)

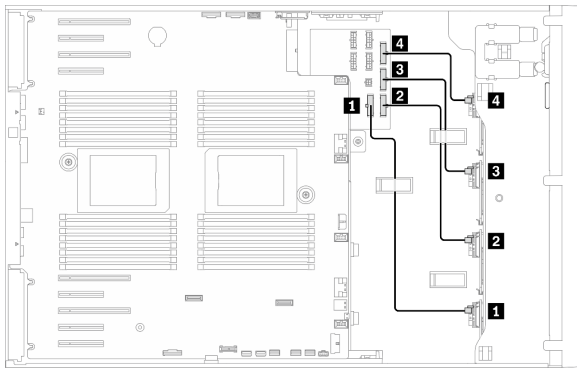


Figure 171. Power cable routing to PDB

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## Signal cable routing

Use the section to understand the signal cable routing for 2.5-inch hot-swap drive backplane.

- [“1 x SAS/SATA backplane” on page 154](#)
- [“2 x SAS/SATA backplanes” on page 161](#)
- [“3 x SAS/SATA backplanes” on page 167](#)
- [“4 x SAS/SATA backplanes” on page 174](#)
- [“1 x SAS/SATA + 1 x NVMe backplane” on page 183](#)
- [“1 x SAS/SATA + 2 x NVMe backplanes” on page 194](#)
- [“2 x SAS/SATA + 1 x NVMe backplane” on page 217](#)
- [“2 x SAS/SATA + 2 x NVMe backplanes” on page 236](#)
- [“1 x SAS/SATA + 1 x AnyBay backplane” on page 259](#)
- [“1 x SAS/SATA + 2 x AnyBay backplanes” on page 270](#)
- [“2 x SAS/SATA + 1 x AnyBay backplane” on page 301](#)
- [“2 x SAS/SATA + 2 x AnyBay backplanes” on page 332](#)

## 1 x SAS/SATA backplane

This section lists the required components for server models with 1 x SAS/SATA 2.5-inch hot-swap backplane.

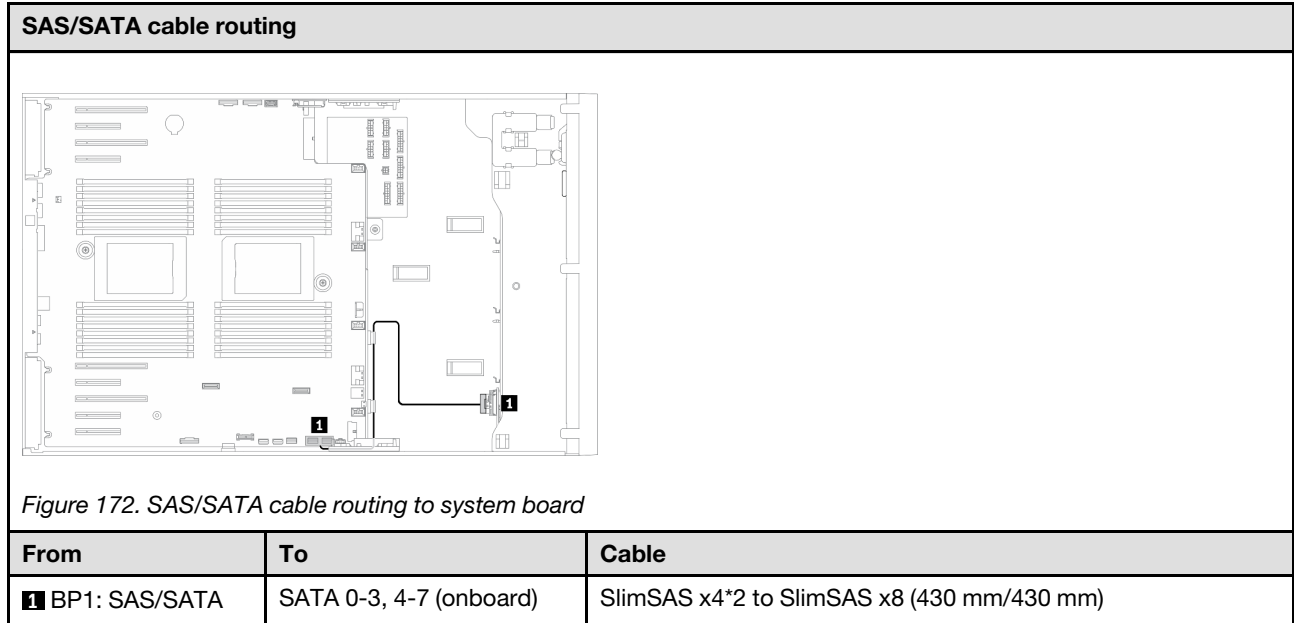
### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

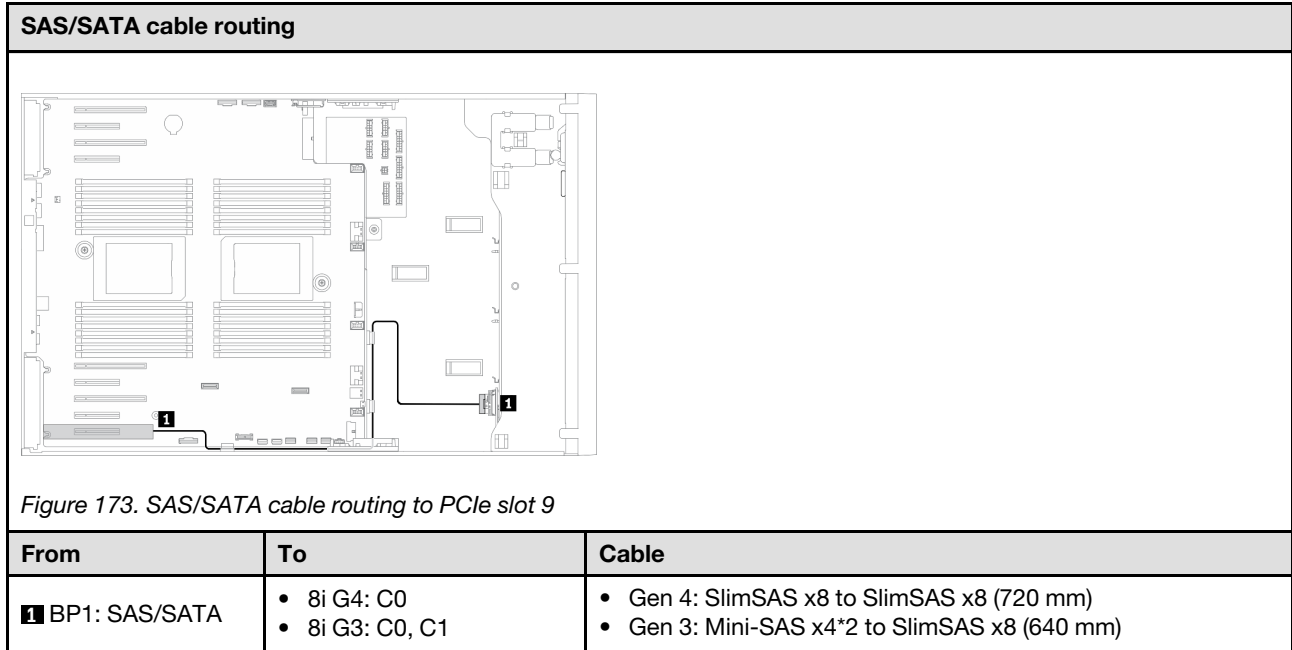
This configuration contains the following combinations:

- [“Onboard SATA” on page 155](#)
- [“1 x 8i RAID/HBA” on page 156](#)
- [“1 x 16i RAID/HBA” on page 157](#)
- [“1 x 24i RAID/HBA” on page 158](#)
- [“1 x 32i RAID/HBA” on page 159](#)
- [“1 x CFF RAID/HBA” on page 160](#)

## Onboard SATA



## 1 x 8i RAID/HBA



## 1 x 16i RAID/HBA

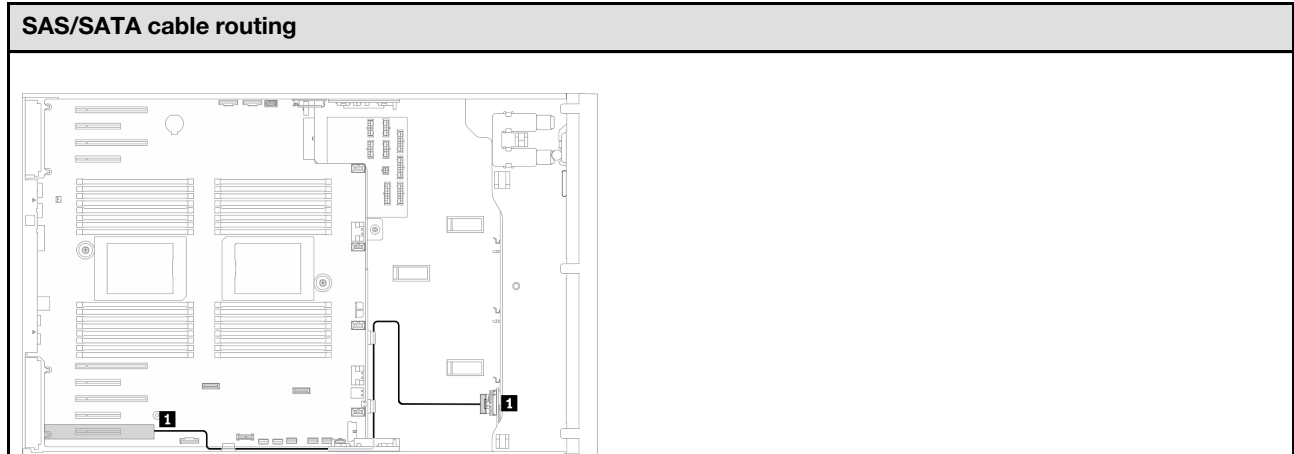
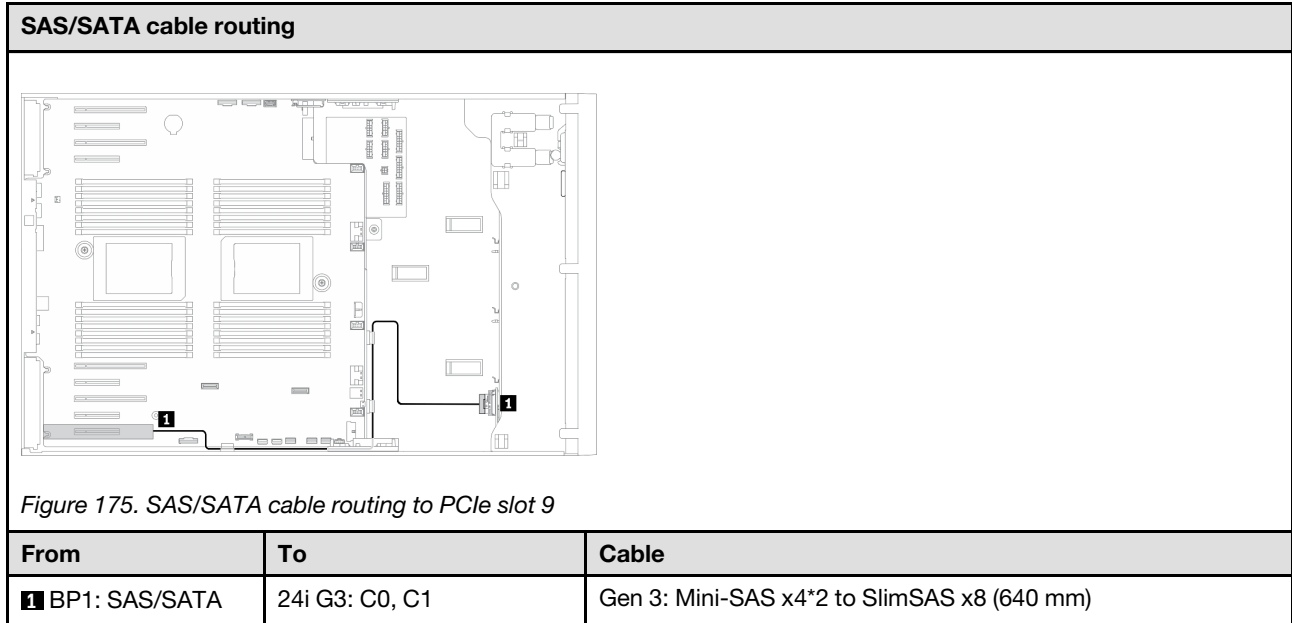


Figure 174. SAS/SATA cable routing to PCIe slot 9

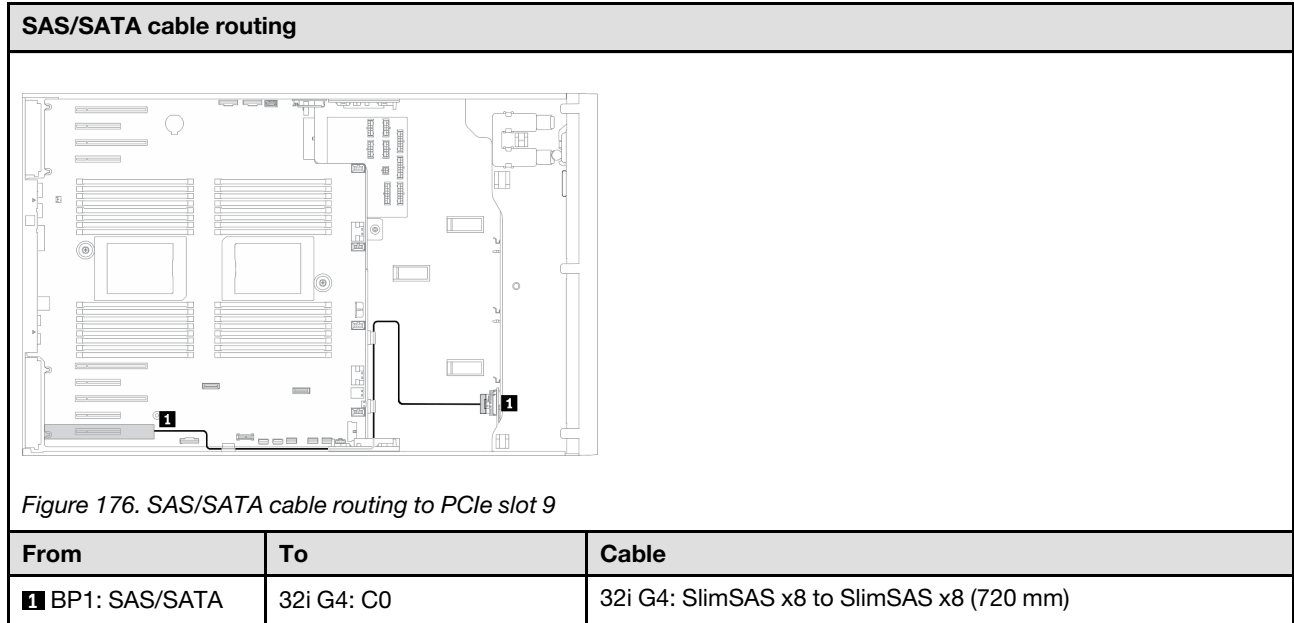
From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 1 x 24i RAID/HBA

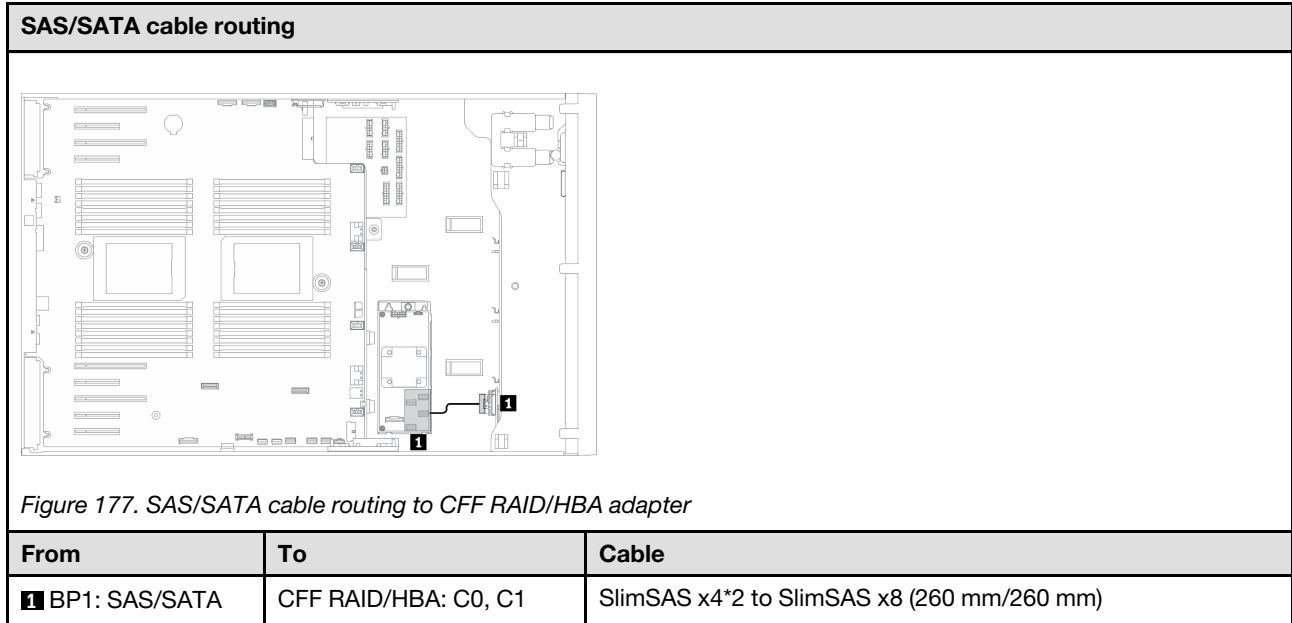




## 1 x 32i RAID/HBA



## 1 x CFF RAID/HBA



## 2 x SAS/SATA backplanes

This section lists the required components for server models with 2 x SAS/SATA 2.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“2 x 8i RAID/HBA” on page 162](#)
- [“1 x 16i RAID/HBA” on page 163](#)
- [“1 x 24i RAID/HBA” on page 164](#)
- [“1 x 32i RAID/HBA” on page 165](#)
- [“1 x CFF RAID/HBA” on page 166](#)

## 2 x 8i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

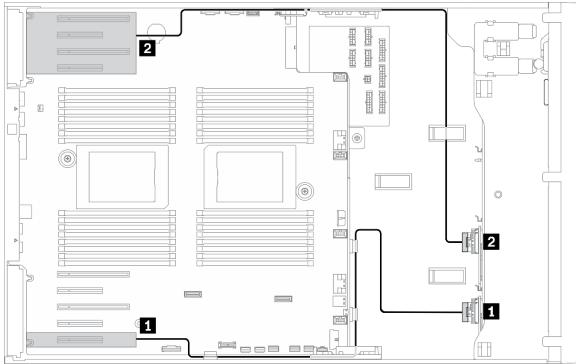


Figure 178. SAS/SATA cable routing to top PCIe zone

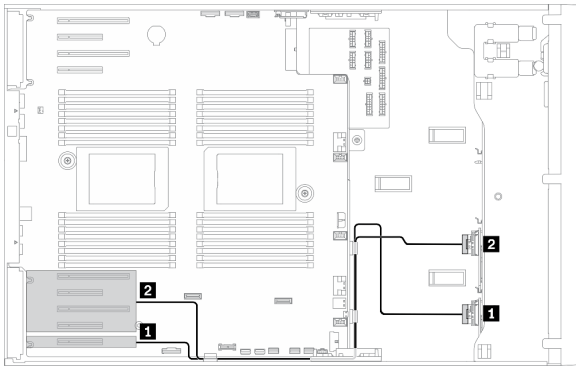


Figure 179. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 1 x 16i RAID/HBA

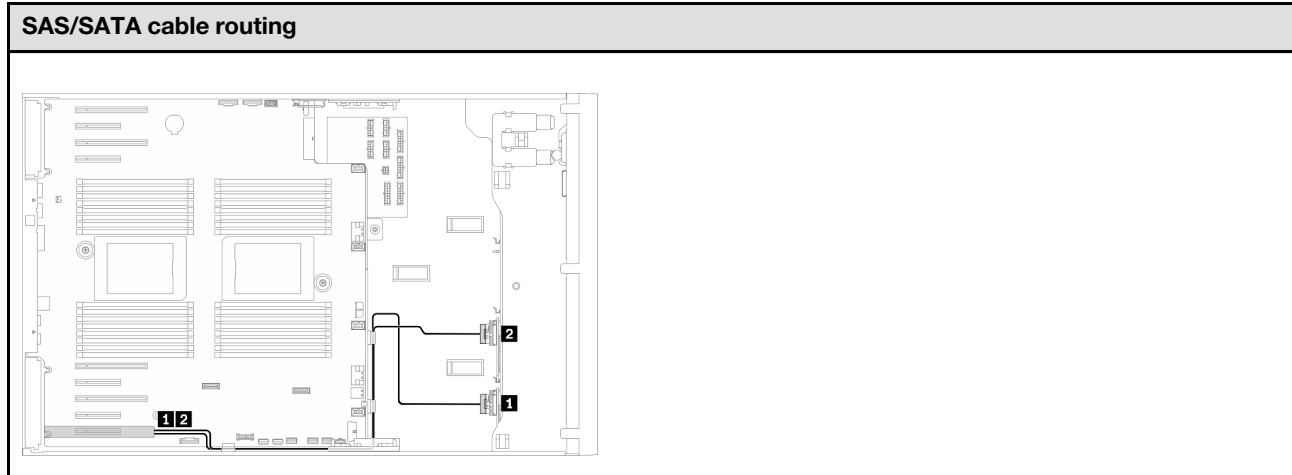


Figure 180. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 1 x 24i RAID/HBA

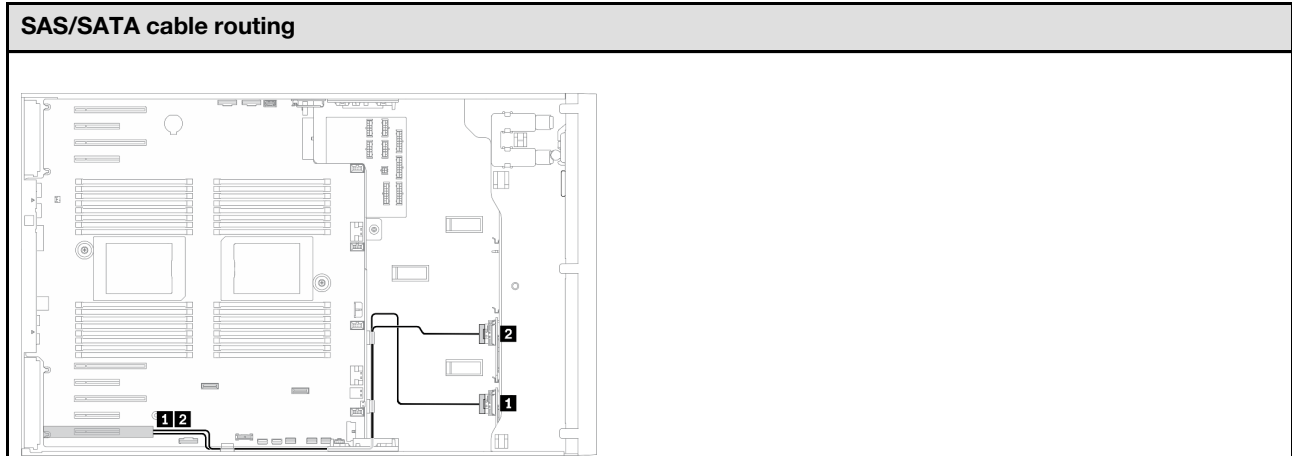


Figure 181. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

## 1 x 32i RAID/HBA

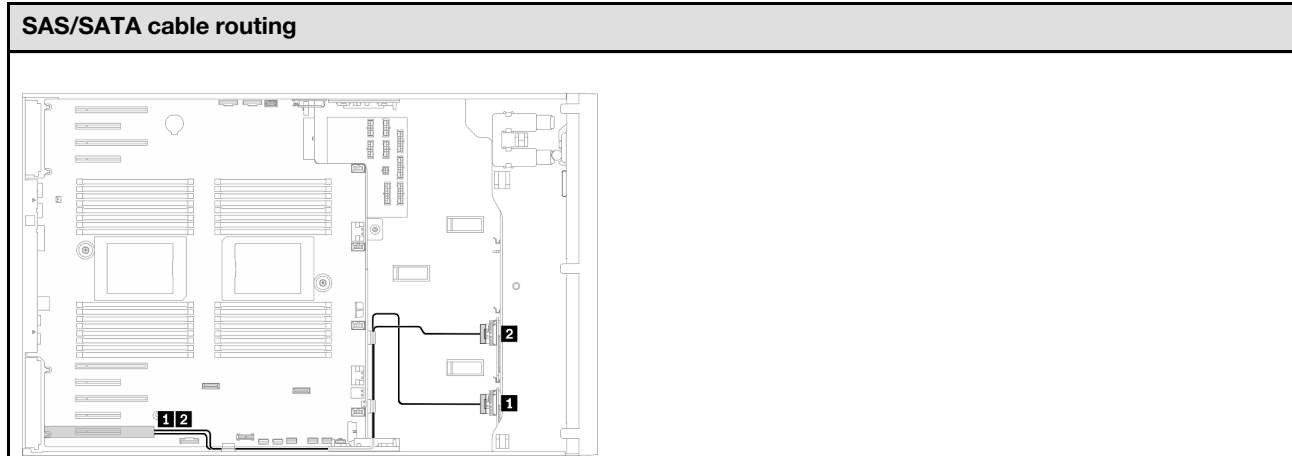


Figure 182. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)

## 1 x CFF RAID/HBA

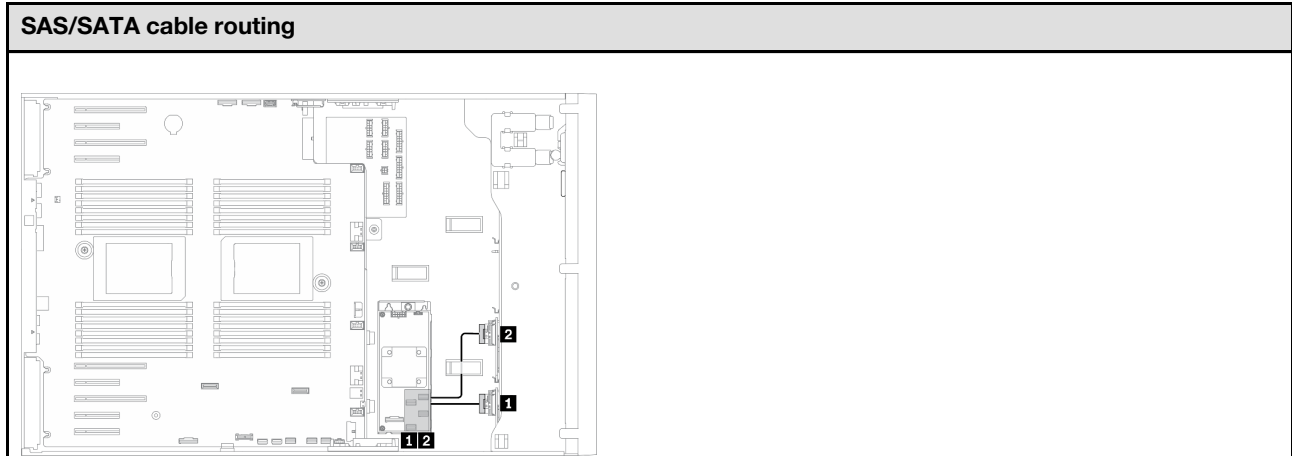


Figure 183. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)



## 3 x SAS/SATA backplanes

This section lists the required components for server models with 3 x SAS/SATA 2.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“3 x 8i RAID/HBA” on page 168](#)
- [“1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 169](#)
- [“1 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 170](#)
- [“1 x 24i RAID/HBA” on page 171](#)
- [“1 x 32i RAID/HBA” on page 172](#)
- [“Onboard SATA + 1 x CFF RAID/HBA” on page 173](#)

### 3 x 8i RAID/HBA

#### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

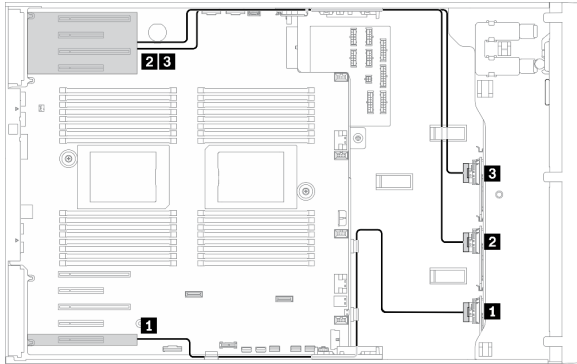


Figure 184. SAS/SATA cable routing to top PCIe zone

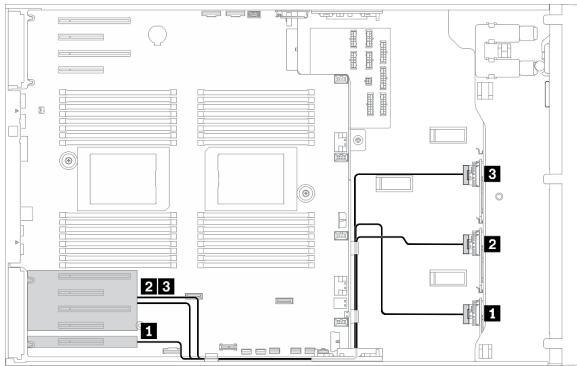


Figure 185. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

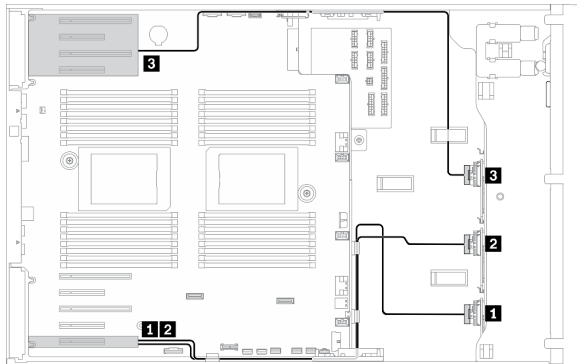


Figure 186. SAS/SATA cable routing to top PCIe zone

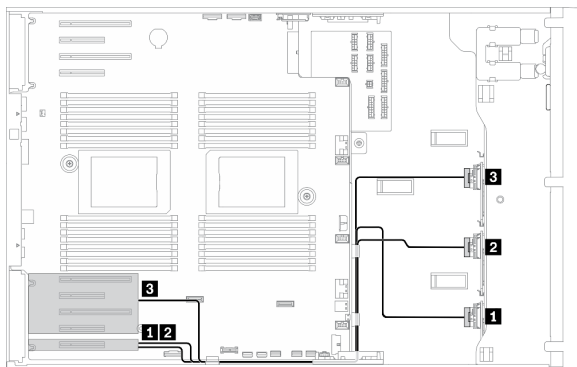


Figure 187. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 1 x 8i RAID/HBA + 1 x 24i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

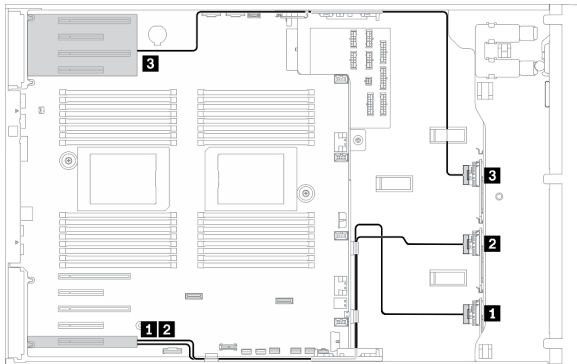


Figure 188. SAS/SATA cable routing to top PCIe zone

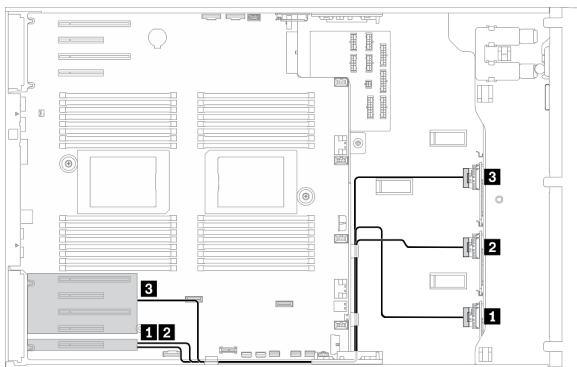
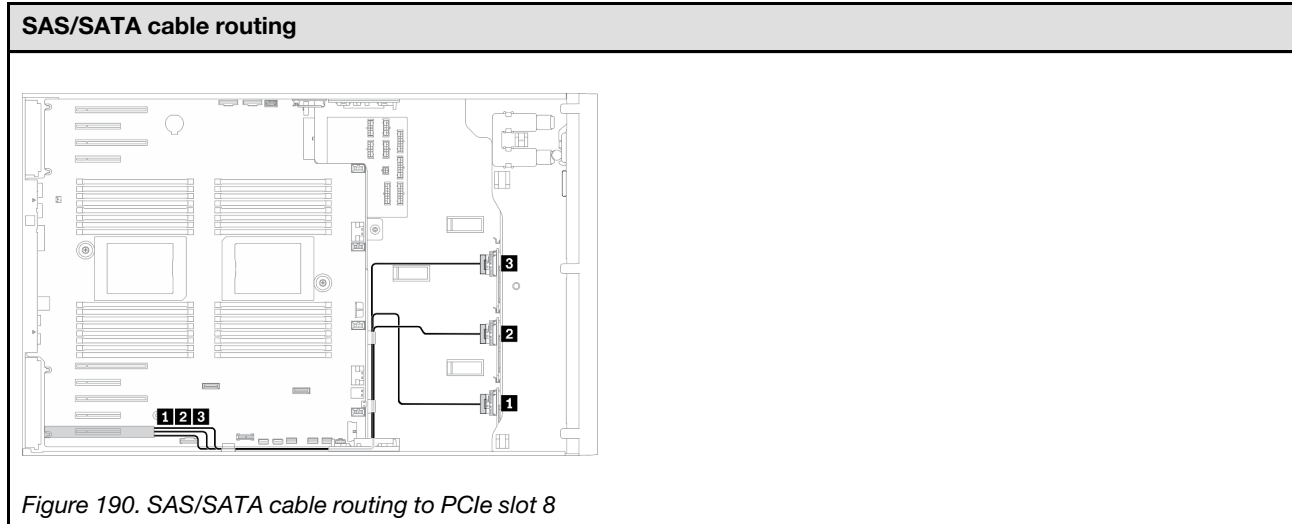


Figure 189. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 1 x 24i RAID/HBA



From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C4, C5	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

**1 x 32i RAID/HBA**

**SAS/SATA cable routing**

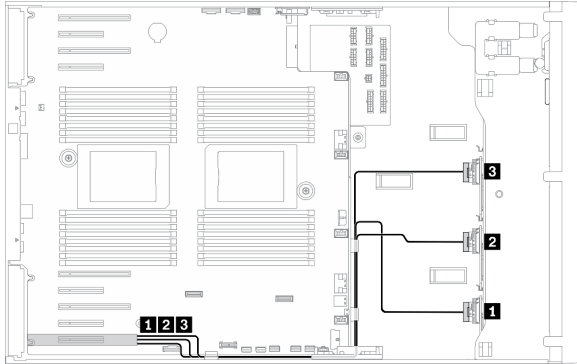


Figure 191. SAS/SATA cable routing to PCIe slot 8

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>3</b> BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)

## Onboard SATA + 1 x CFF RAID/HBA

### SAS/SATA cable routing

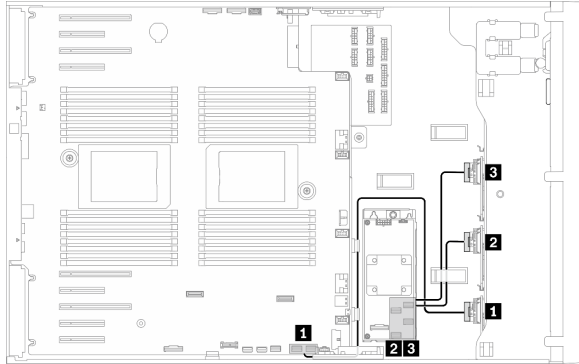


Figure 192. SAS/SATA cable routing to system board and CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
<b>3</b> BP3: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

## 4 x SAS/SATA backplanes

This section lists the required components for server models with 4 x SAS/SATA 2.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“4 x 8i RAID/HBA” on page 175](#)
- [“2 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 176](#)
- [“1 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 177](#)
- [“2 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 178](#)
- [“2 x 16i RAID/HBA” on page 179](#)
- [“1 x 16i RAID/HBA + 1 x 24i RAID/HBA” on page 180](#)
- [“2 x 24i RAID/HBA” on page 181](#)
- [“1 x 32i RAID/HBA” on page 182](#)



## 4 x 8i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

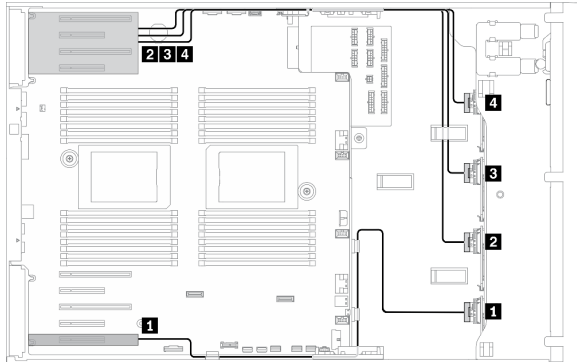


Figure 193. SAS/SATA cable routing to top PCIe zone

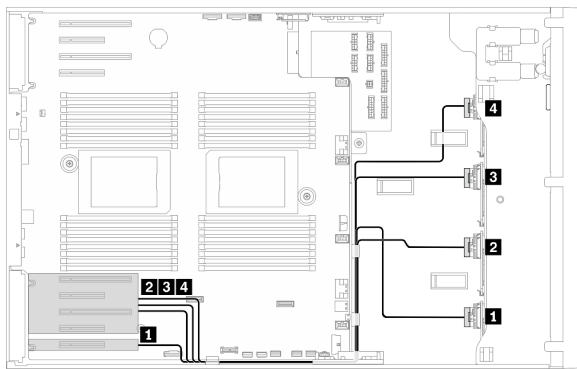


Figure 194. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 2 x 8i RAID/HBA + 1 x 16i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

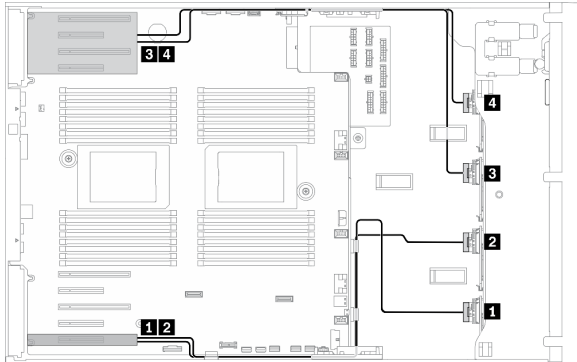


Figure 195. SAS/SATA cable routing to top PCIe zone

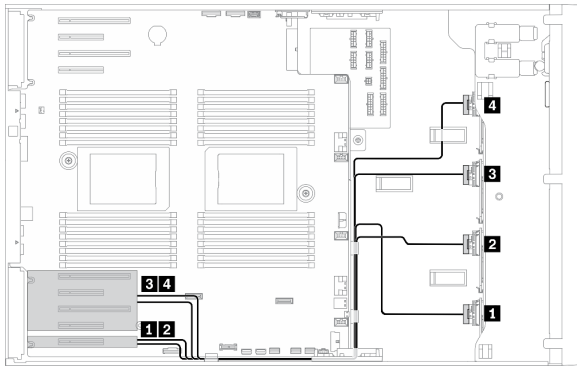


Figure 196. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 1 x 8i RAID/HBA + 1 x 24i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

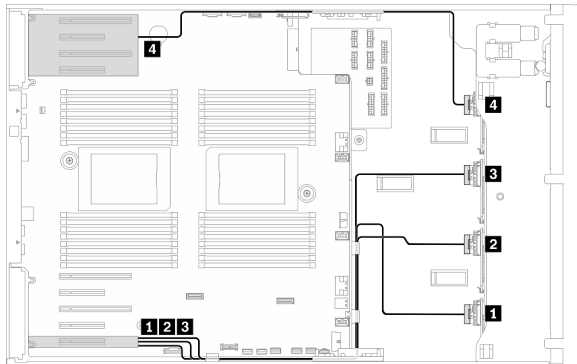


Figure 197. SAS/SATA cable routing to top PCIe zone

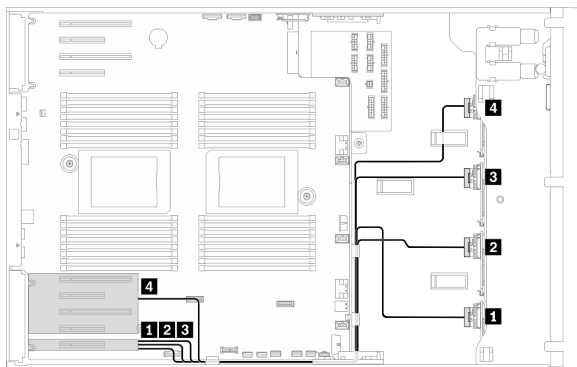


Figure 198. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C4, C5	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 2 x 8i RAID/HBA + 1 x 24i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

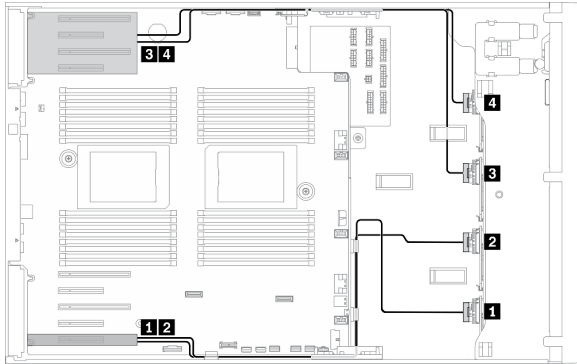


Figure 199. SAS/SATA cable routing to top PCIe zone

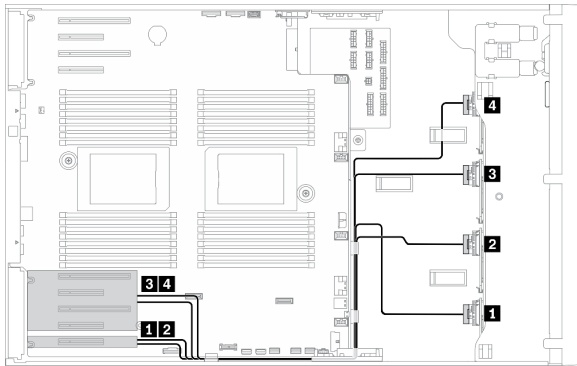


Figure 200. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 2 x 16i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

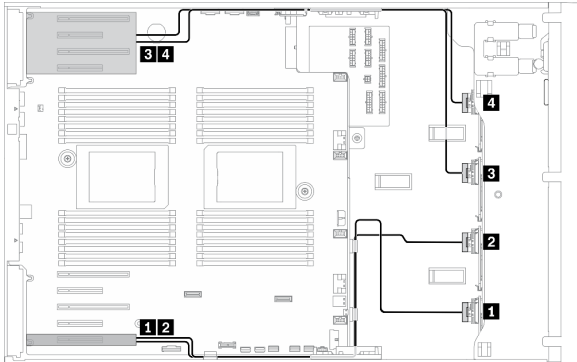


Figure 201. SAS/SATA cable routing to top PCIe zone

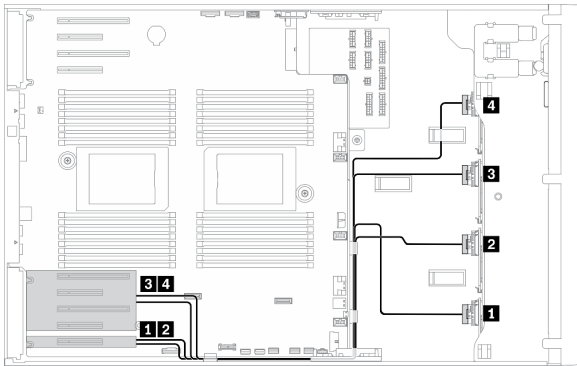


Figure 202. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 1 x 16i RAID/HBA + 1 x 24i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

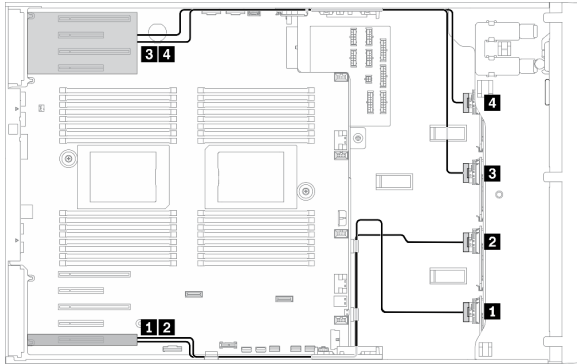


Figure 203. SAS/SATA cable routing to top PCIe zone

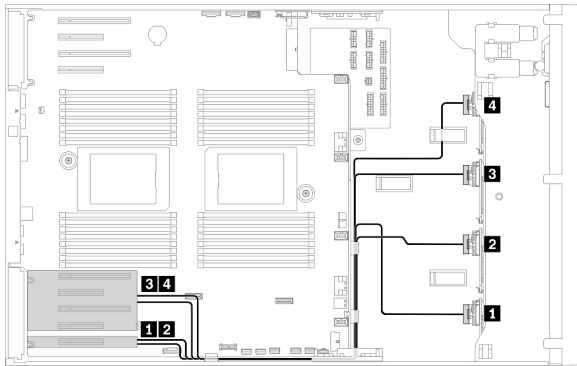


Figure 204. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	16i G4: C0	Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)
<b>4</b> BP4: SAS/SATA	16i G4: C1	Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)

## 2 x 24i RAID/HBA

### SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

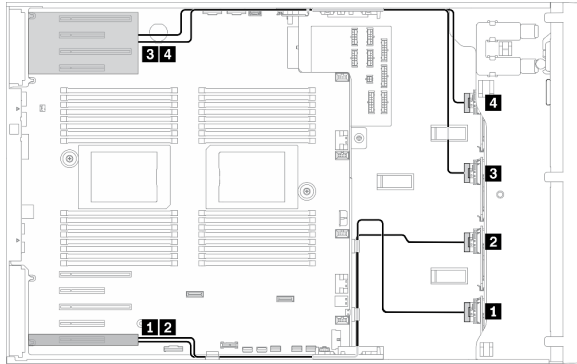


Figure 205. SAS/SATA cable routing to top PCIe zone

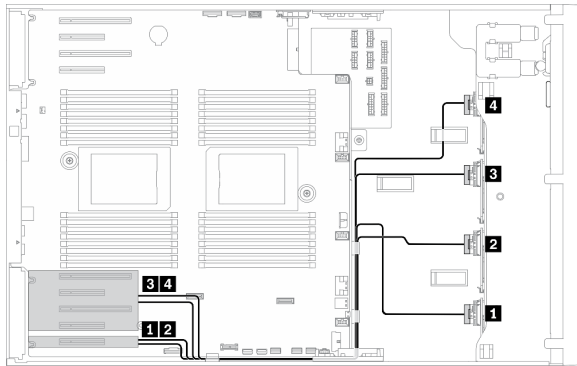


Figure 206. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)
<b>4</b> BP4: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## 1 x 32i RAID/HBA

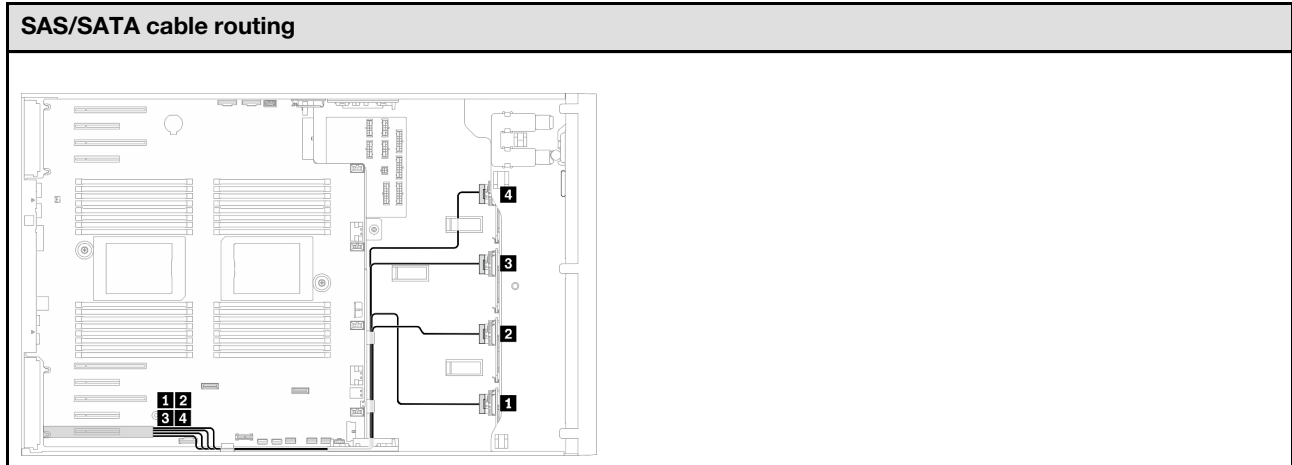


Figure 207. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>3</b> BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>4</b> BP4: SAS/SATA	32i G4: C3	SlimSAS x8 to SlimSAS x8 (880 mm)



## 1 x SAS/SATA + 1 x NVMe backplane

This section lists the required components for server models with 1 x SAS/SATA + 1 x NVMe 2.5-inch hot-swap backplane.

### Notes:

- Connections between connectors: **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 184](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 186](#)
- [“Onboard NVMe + 1 x 24i RAID/HBA” on page 188](#)
- [“Onboard NVMe + 1 x 32i RAID/HBA” on page 190](#)
- [“2 x retimers + 1 x CFF RAID/HBA” on page 192](#)

## Onboard NVMe + 1 x 8i RAID/HBA

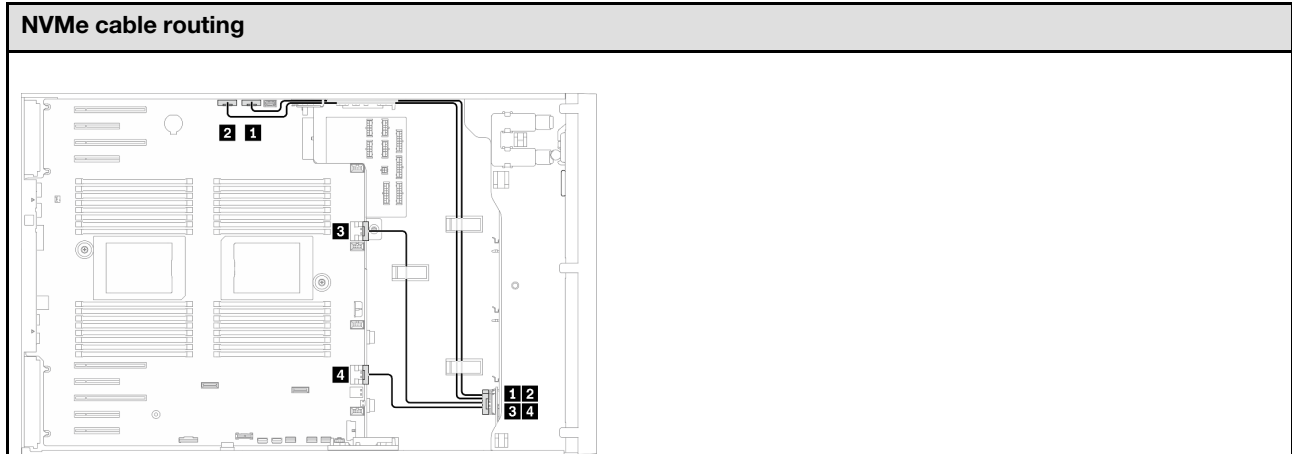


Figure 208. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

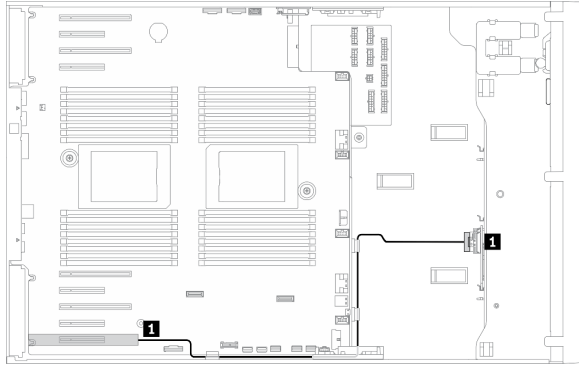


Figure 209. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 1 x 16i RAID/HBA

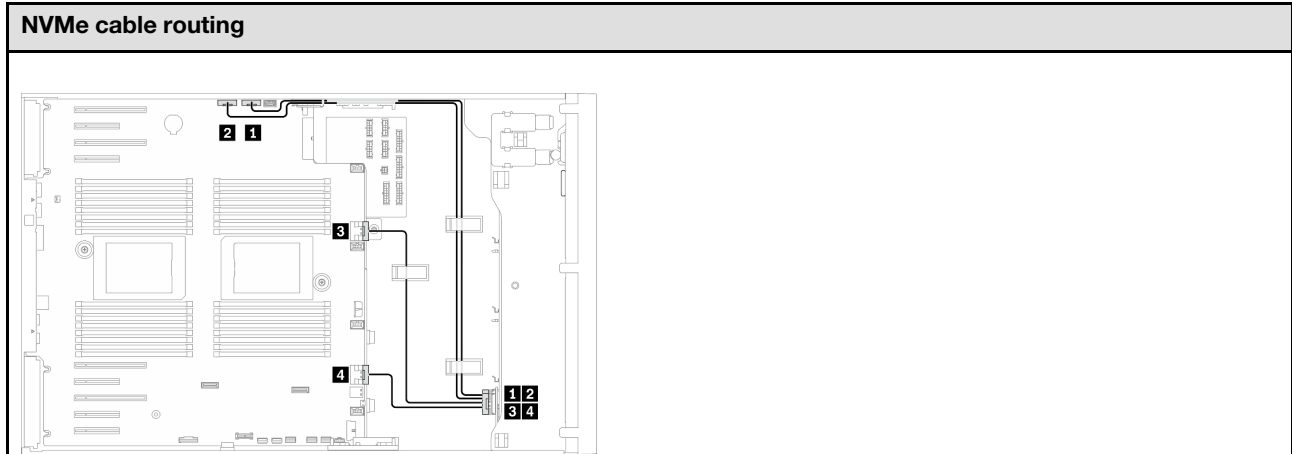


Figure 210. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

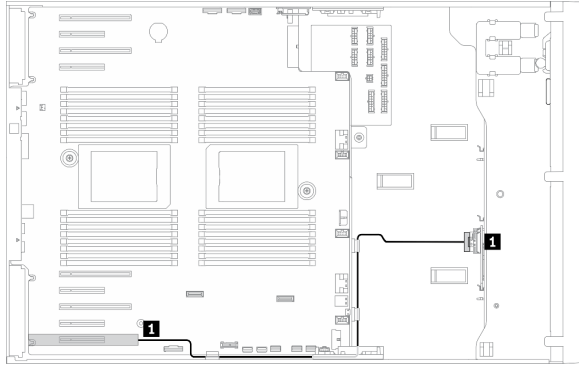


Figure 211. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 1 x 24i RAID/HBA

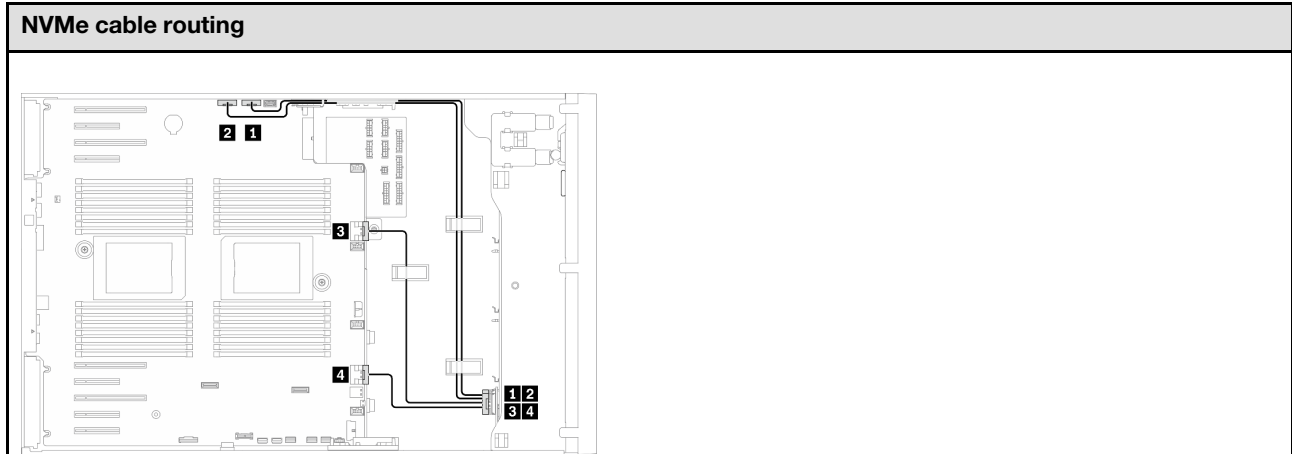


Figure 212. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

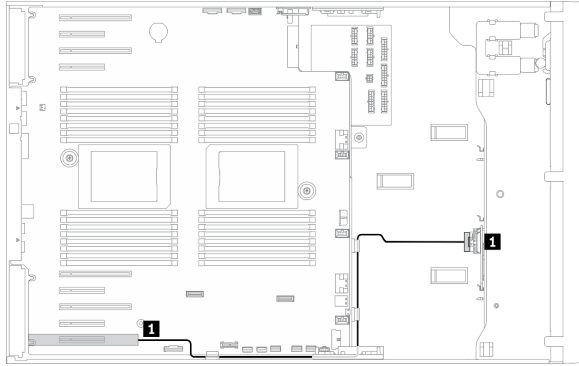


Figure 213. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

## Onboard NVMe + 1 x 32i RAID/HBA

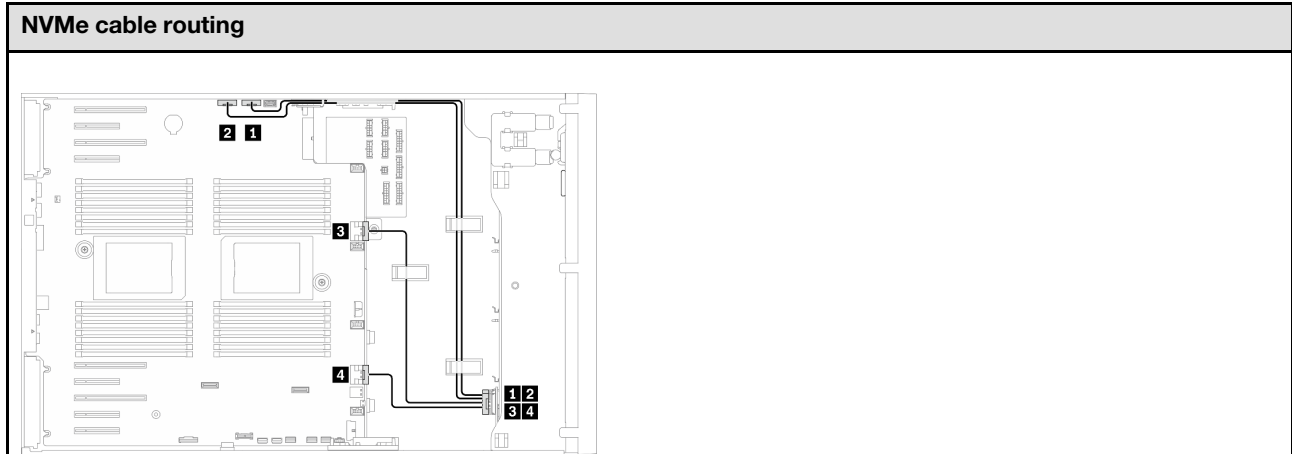


Figure 214. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	



## SAS/SATA cable routing

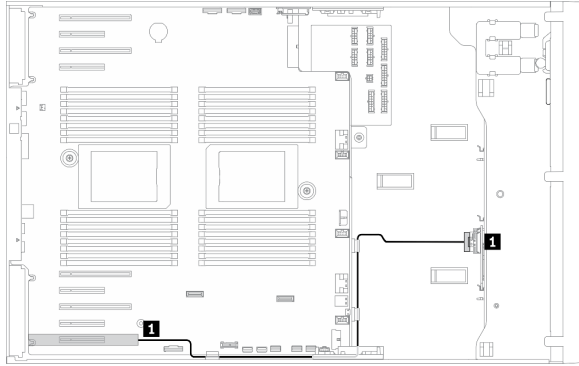


Figure 215. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)

## 2 x retimers + 1 x CFF RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

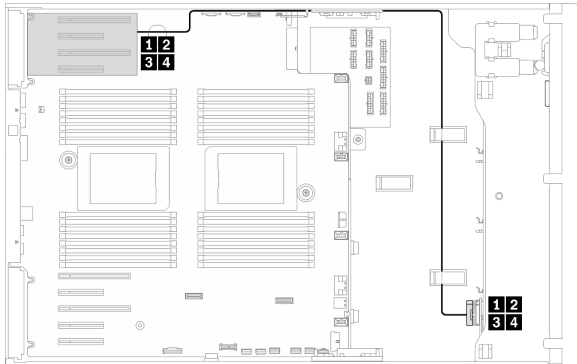


Figure 216. NVMe cable routing to top PCIe zone

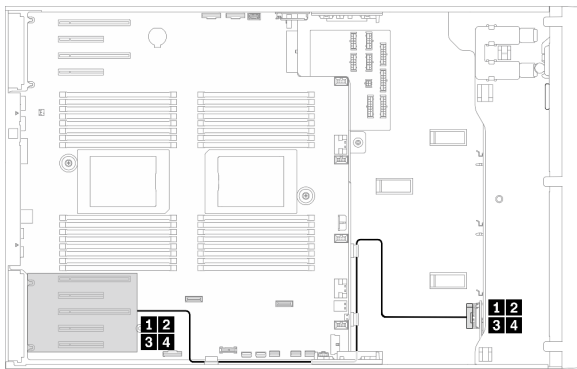


Figure 217. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

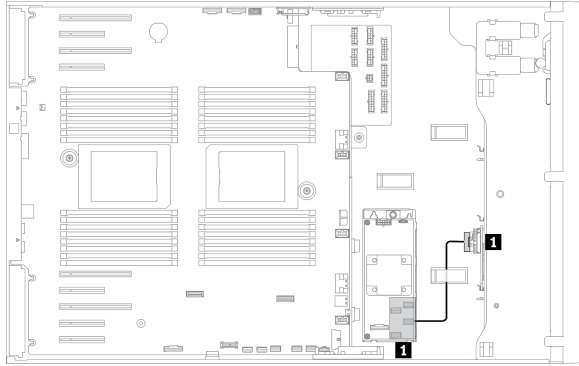


Figure 218. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP2: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)

## 1 x SAS/SATA + 2 x NVMe backplanes

This section lists the required components for server models with 1 x SAS/SATA + 2 x NVMe 2.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 2 x retimers” on page 195](#)
- [“Onboard NVMe + 2 x retimers + 1 x 8i RAID/HBA” on page 197](#)
- [“Onboard NVMe + 2 x retimers + 1 x 16i RAID/HBA” on page 199](#)
- [“Onboard NVMe + 2 x retimers + 1 x 24i RAID/HBA” on page 201](#)
- [“Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA” on page 203](#)
- [“Onboard SATA + 4 x retimers” on page 205](#)
- [“4 x retimers + 1 x 8i RAID/HBA” on page 207](#)
- [“4 x retimers + 1 x 16i RAID/HBA” on page 209](#)
- [“4 x retimers + 1 x 24i RAID/HBA” on page 211](#)
- [“4 x retimers + 1 x 32i RAID/HBA” on page 213](#)
- [“4 x retimers + 1 x CFF RAID/HBA” on page 215](#)

## Onboard NVMe/SATA + 2 x retimers

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

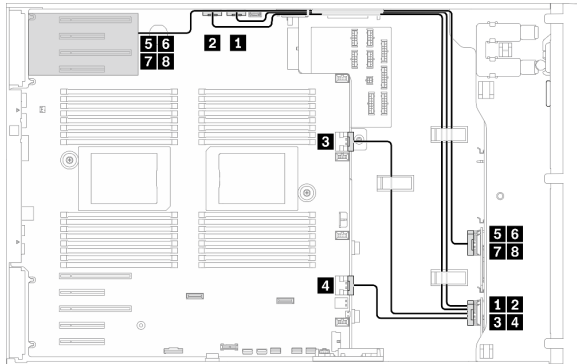


Figure 219. NVMe cable routing to system board and top PCIe zone

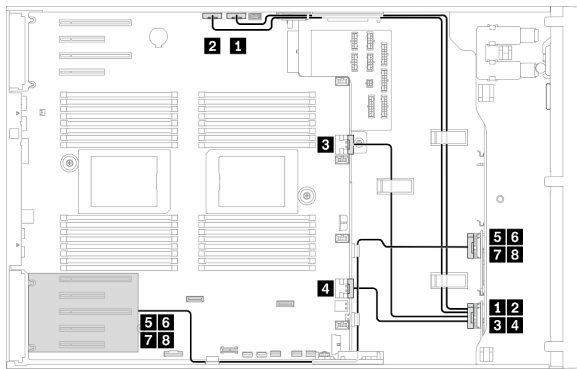


Figure 220. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

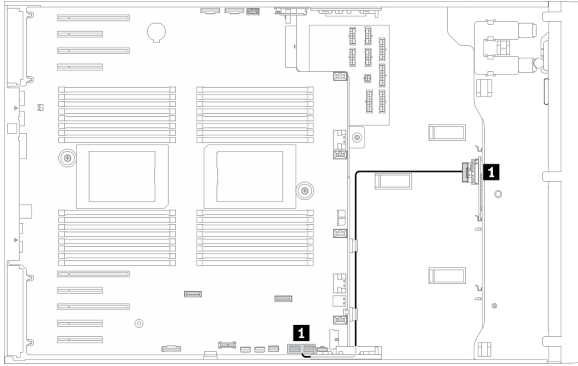


Figure 221. SAS/SATA cable routing to system board

From	To	Cable
1 BP3: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

## Onboard NVMe + 2 x retimers + 1 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

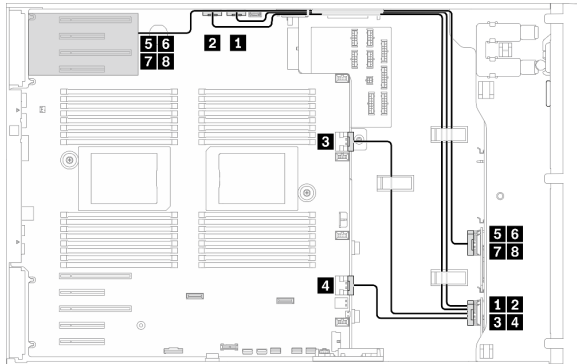


Figure 222. NVMe cable routing to system board and top PCIe zone

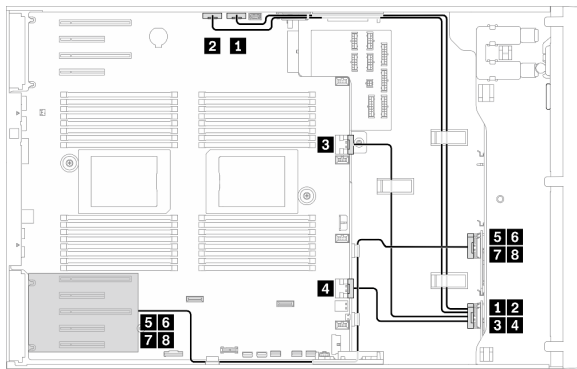


Figure 223. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

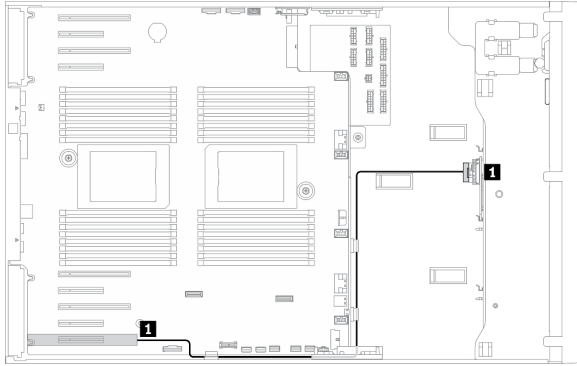


Figure 224. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>



## Onboard NVMe + 2 x retimers + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

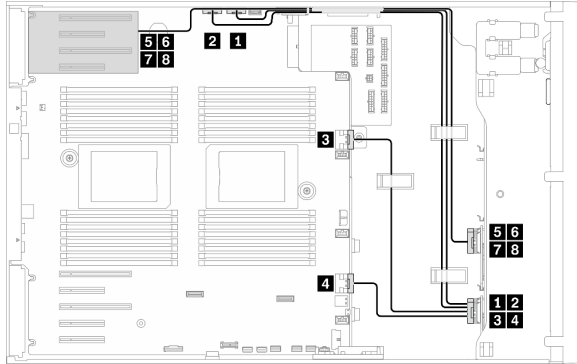


Figure 225. NVMe cable routing to system board and top PCIe zone

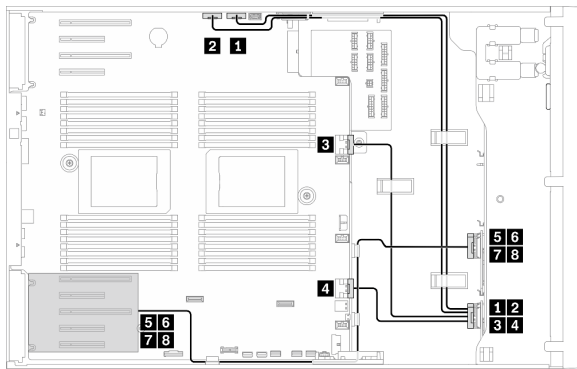


Figure 226. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

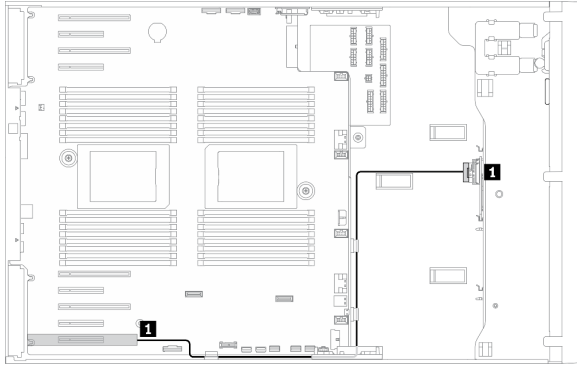


Figure 227. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

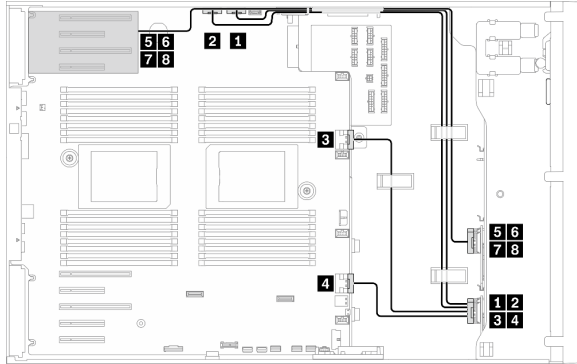


Figure 228. NVMe cable routing to system board and top PCIe zone

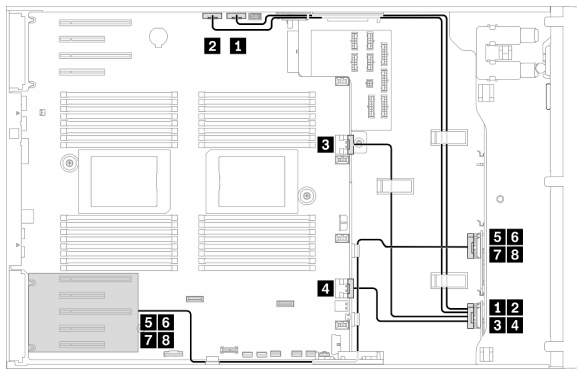


Figure 229. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

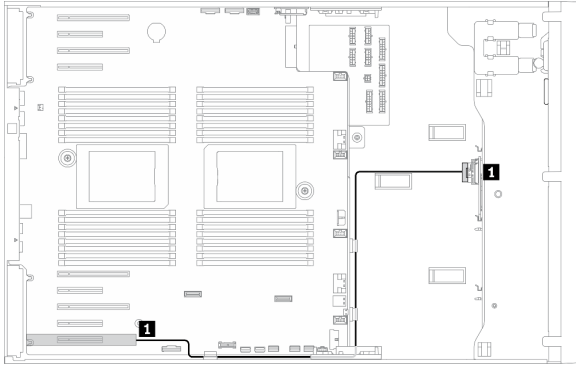


Figure 230. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

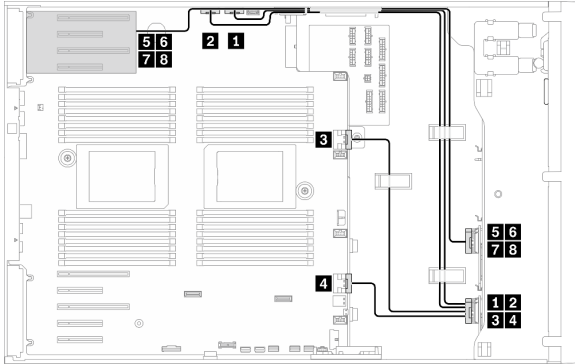


Figure 231. NVMe cable routing to system board and top PCIe zone

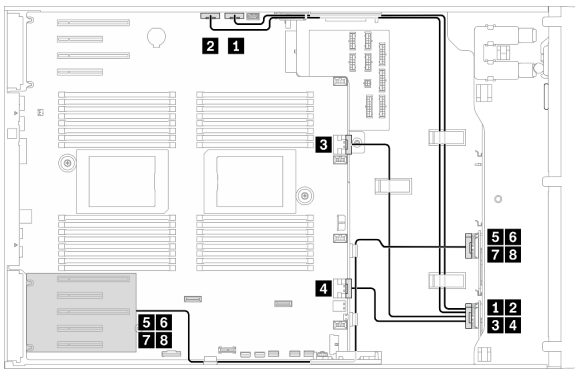


Figure 232. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

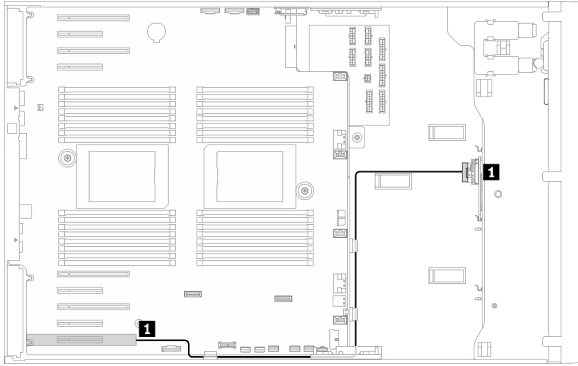


Figure 233. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)

## Onboard SATA + 4 x retimers

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

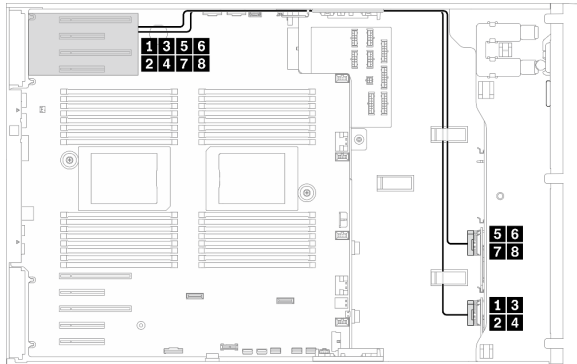


Figure 234. NVMe cable routing to top PCIe zone

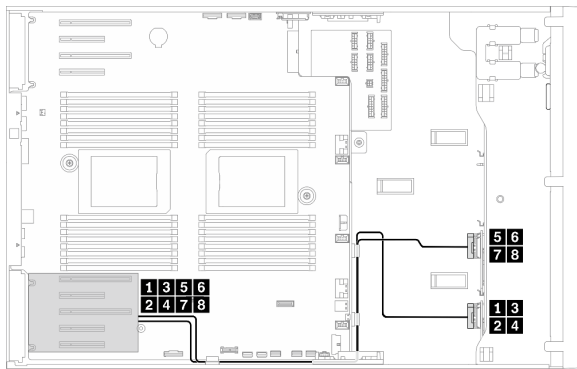


Figure 235. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

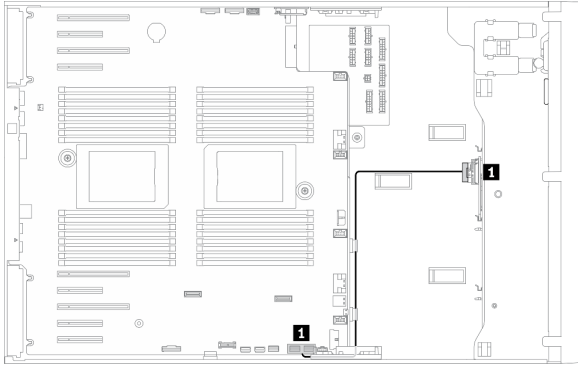


Figure 236. SAS/SATA cable routing to system board

From	To	Cable
1 BP3: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)



## 4 x retimers + 1 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

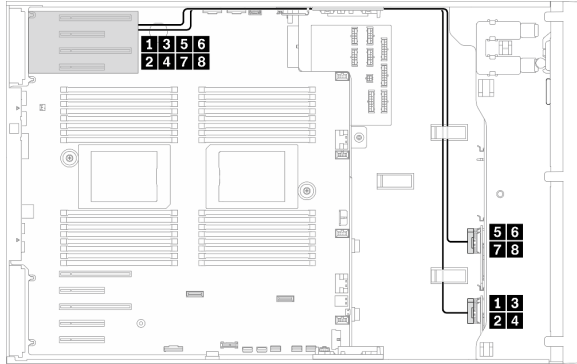


Figure 237. NVMe cable routing to top PCIe zone

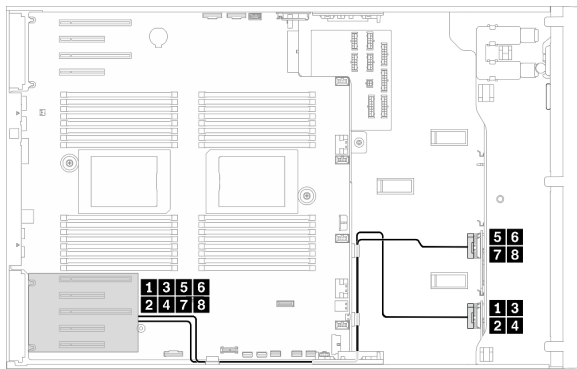


Figure 238. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

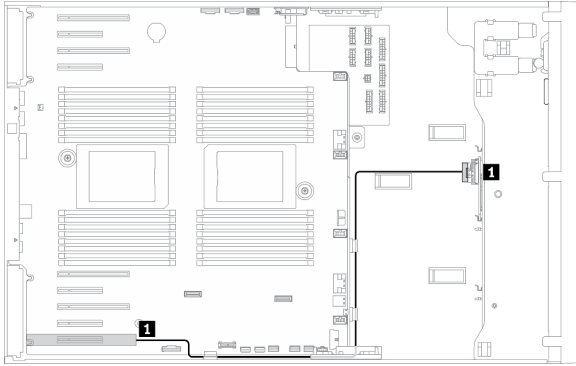


Figure 239. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

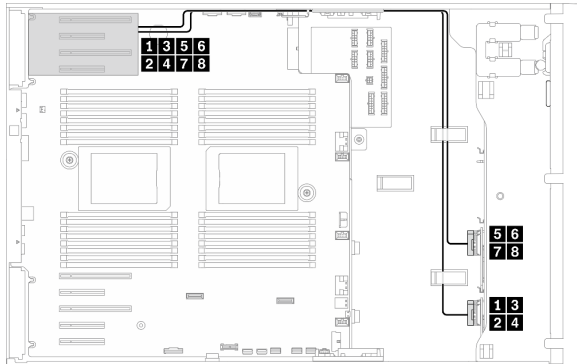


Figure 240. NVMe cable routing to top PCIe zone

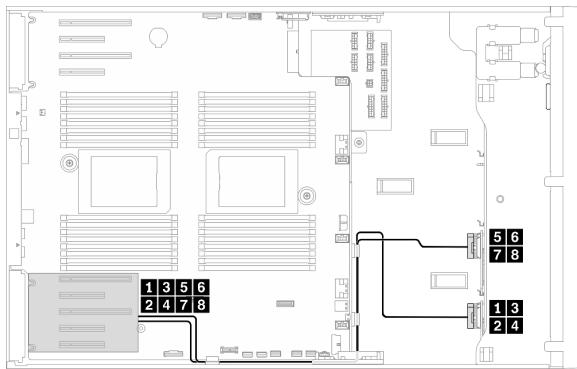


Figure 241. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

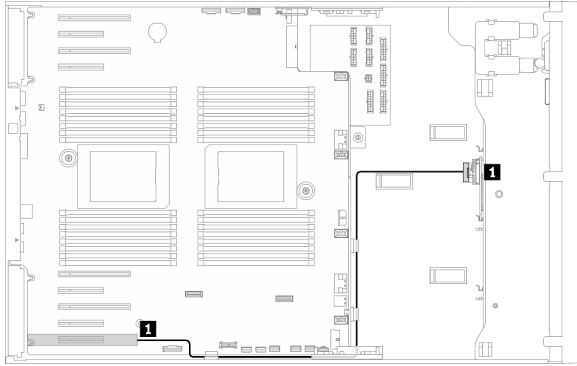


Figure 242. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

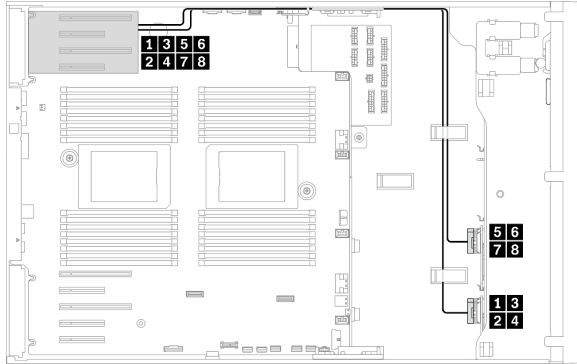


Figure 243. NVMe cable routing to top PCIe zone

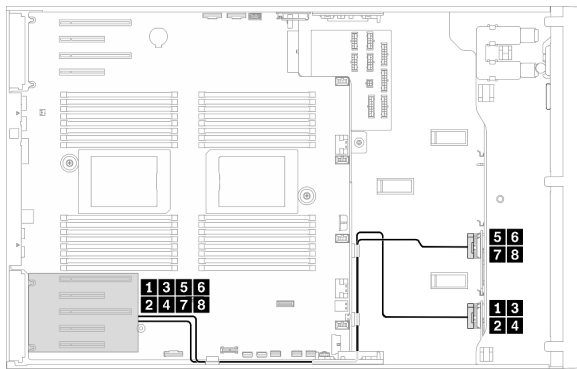


Figure 244. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

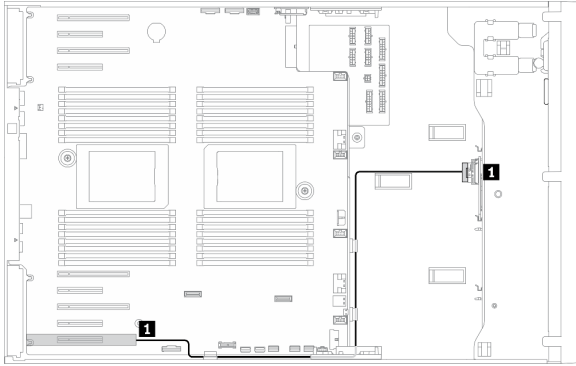


Figure 245. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## 4 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

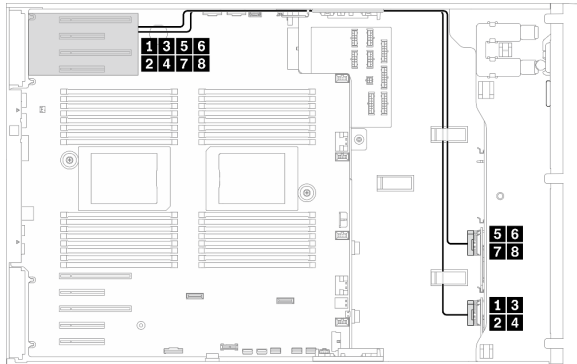


Figure 246. NVMe cable routing to top PCIe zone

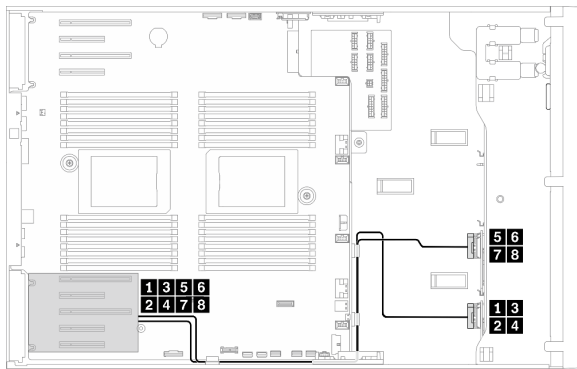


Figure 247. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

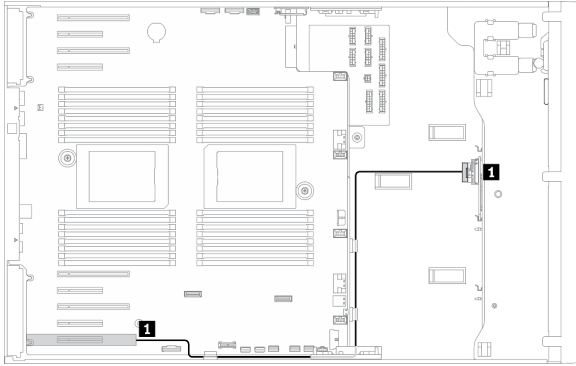


Figure 248. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)



## 4 x retimers + 1 x CFF RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

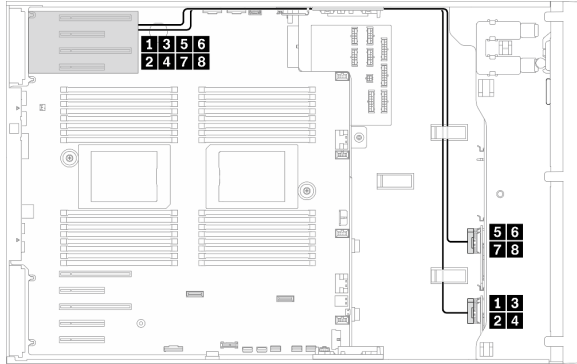


Figure 249. NVMe cable routing to top PCIe zone

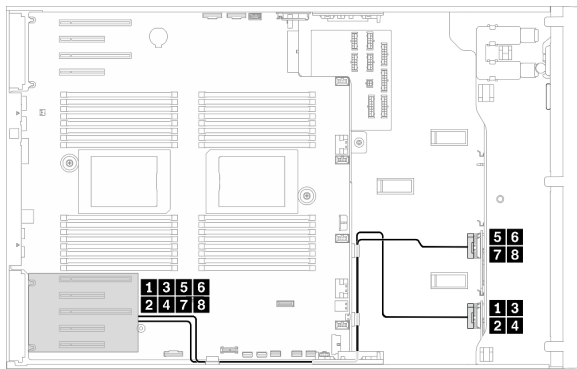


Figure 250. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

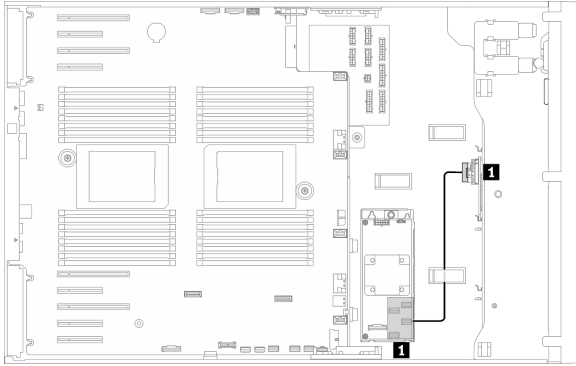


Figure 251. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP3: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

## 2 x SAS/SATA + 1 x NVMe backplane

This section lists the required components for server models with 2 x SAS/SATA + 1 x NVMe 2.5-inch hot-swap backplane.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 2 x 8i RAID/HBA” on page 218](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 220](#)
- [“Onboard NVMe + 1 x 24i RAID/HBA” on page 222](#)
- [“Onboard NVMe + 1 x 32i RAID/HBA” on page 224](#)
- [“2 x retimers + 2 x 8i RAID/HBA” on page 226](#)
- [“2 x retimers + 1 x 16i RAID/HBA” on page 228](#)
- [“2 x retimers + 1 x 24i RAID/HBA” on page 230](#)
- [“2 x retimers + 1 x 32i RAID/HBA” on page 232](#)
- [“2 x retimers + 1 x CFF RAID/HBA” on page 234](#)

## Onboard NVMe + 2 x 8i RAID/HBA

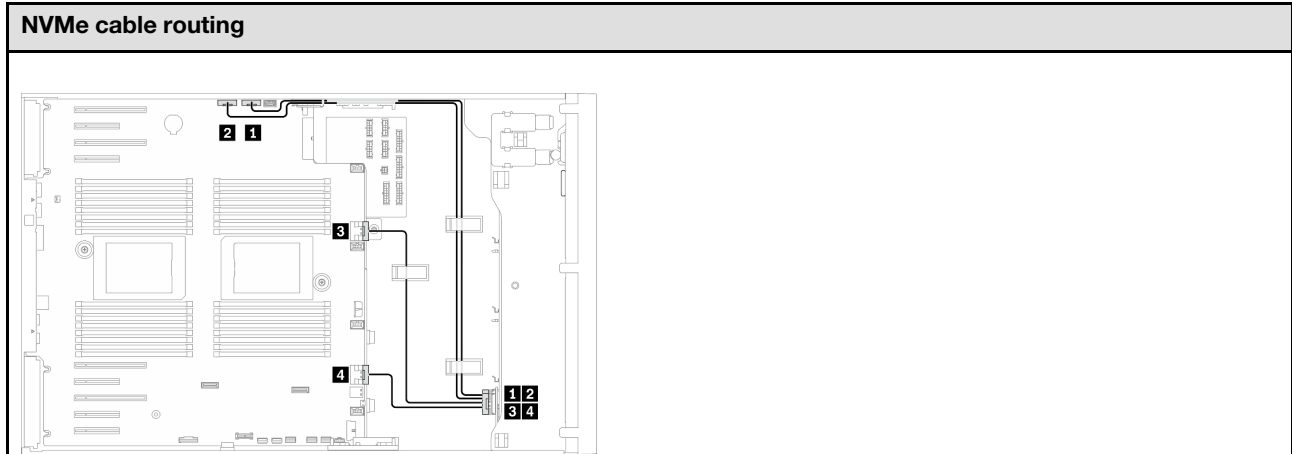


Figure 252. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

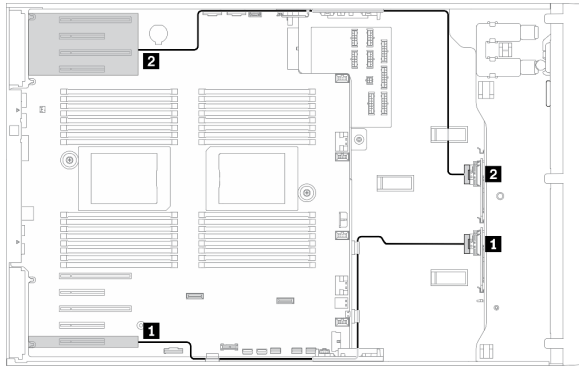


Figure 253. SAS/SATA cable routing to top PCIe zone

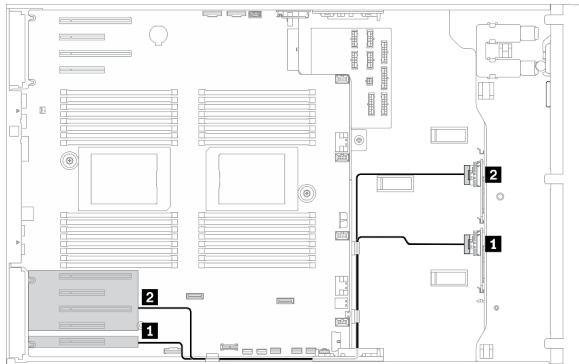


Figure 254. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 1 x 16i RAID/HBA

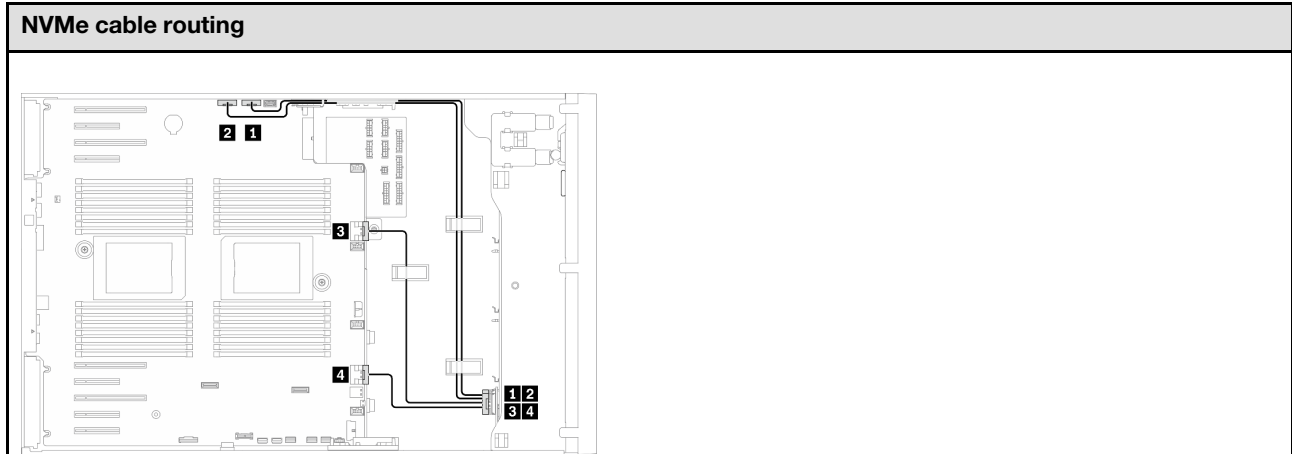


Figure 255. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

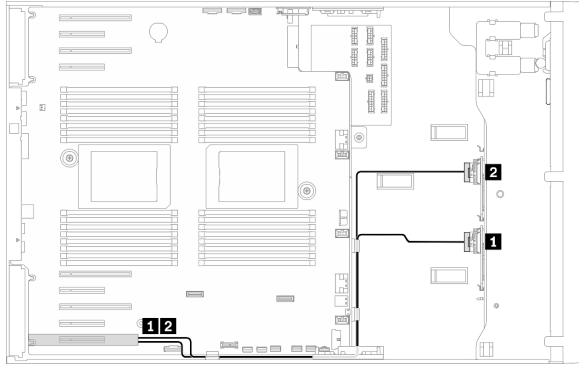


Figure 256. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 1 x 24i RAID/HBA

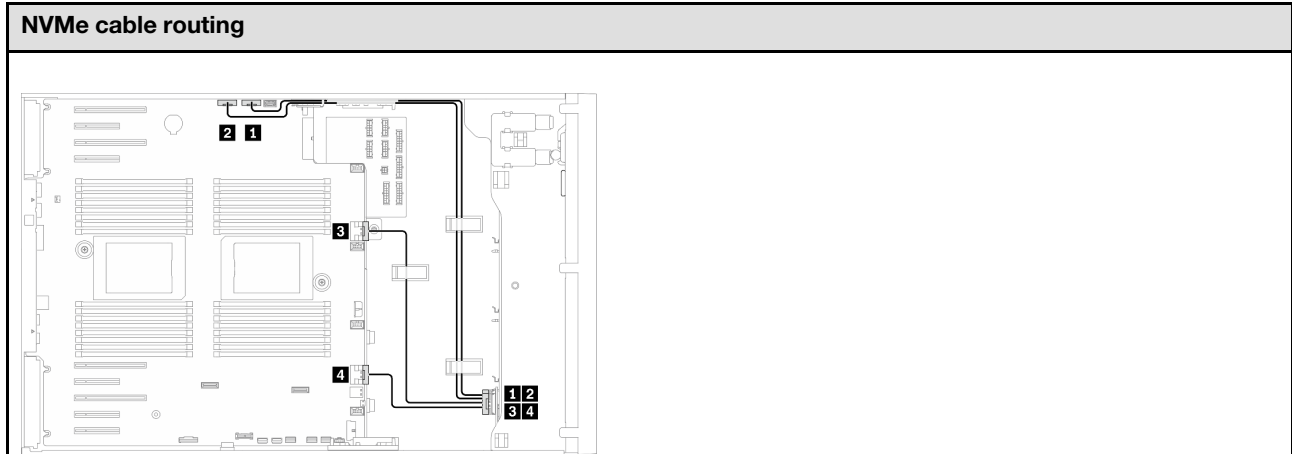


Figure 257. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	



## SAS/SATA cable routing

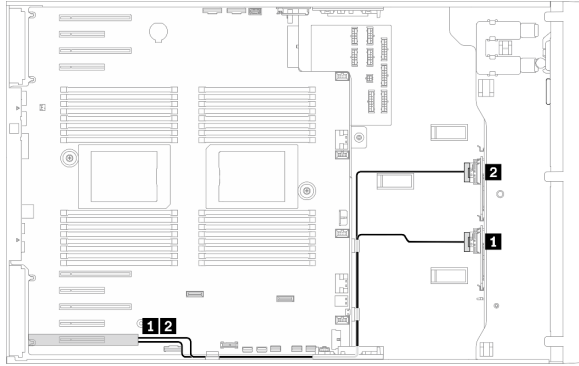


Figure 258. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## Onboard NVMe + 1 x 32i RAID/HBA

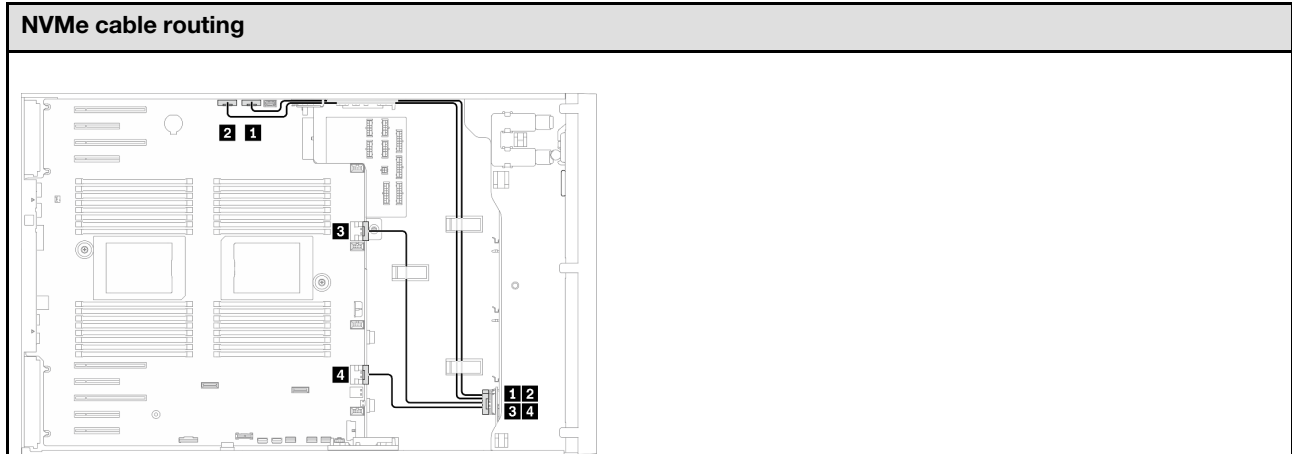


Figure 259. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

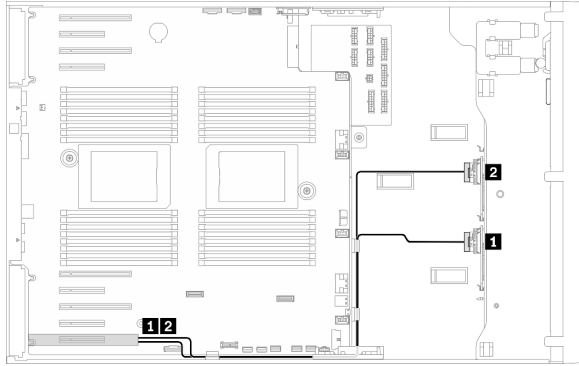


Figure 260. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP2: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP3: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)

## 2 x retimers + 2 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

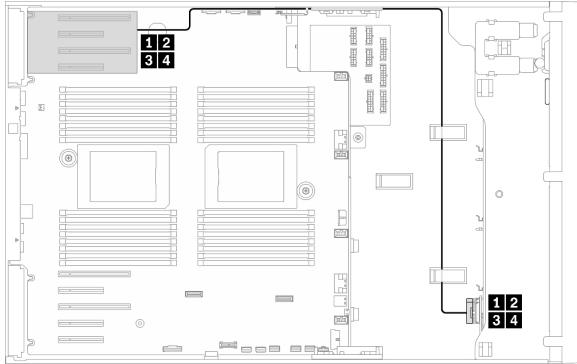


Figure 261. NVMe cable routing to top PCIe zone

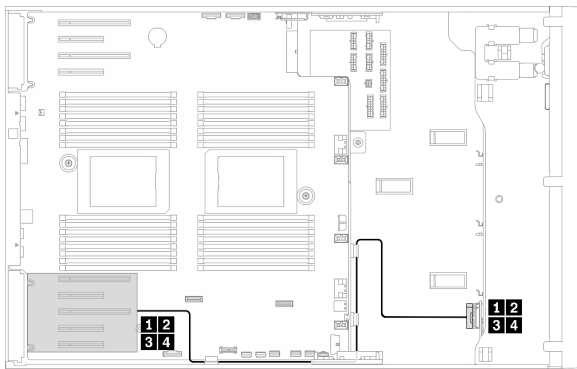


Figure 262. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

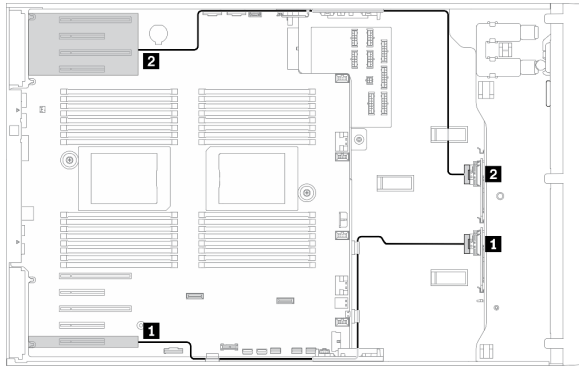


Figure 263. SAS/SATA cable routing to top PCIe zone

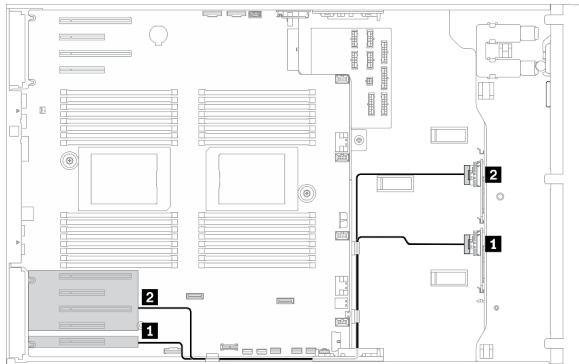


Figure 264. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 2 x retimers + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

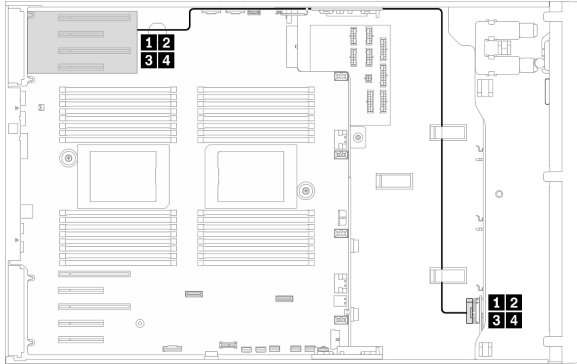


Figure 265. NVMe cable routing to top PCIe zone

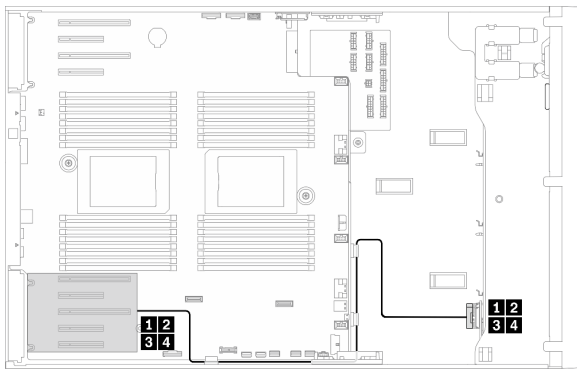


Figure 266. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

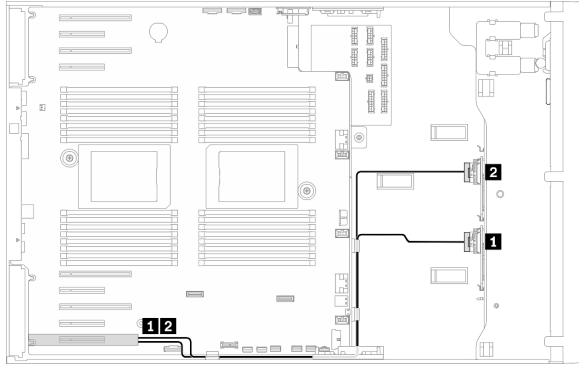


Figure 267. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 2 x retimers + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

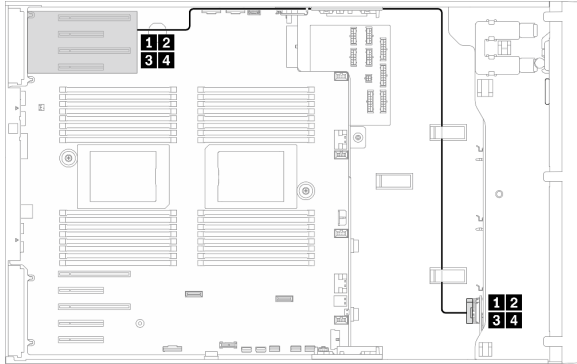


Figure 268. NVMe cable routing to top PCIe zone

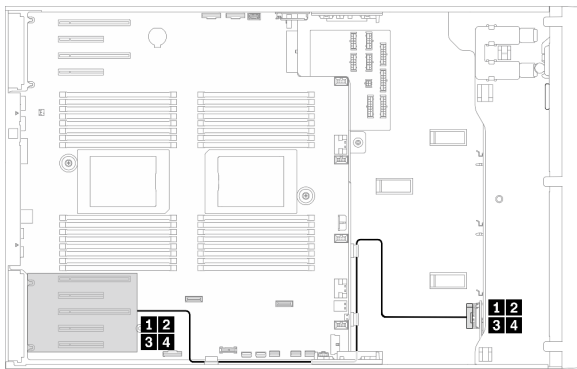


Figure 269. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

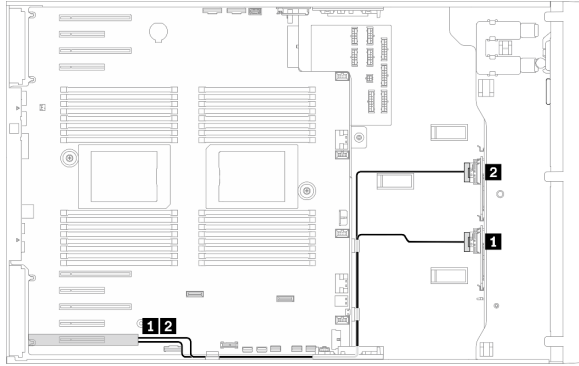


Figure 270. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## 2 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

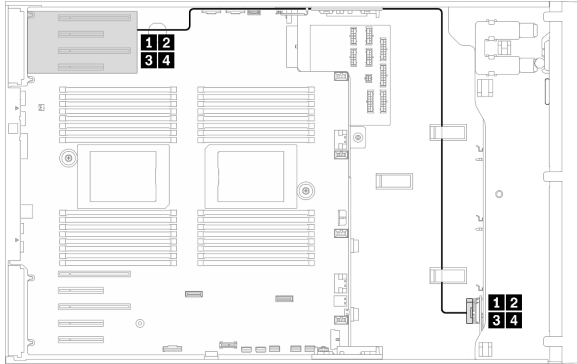


Figure 271. NVMe cable routing to top PCIe zone

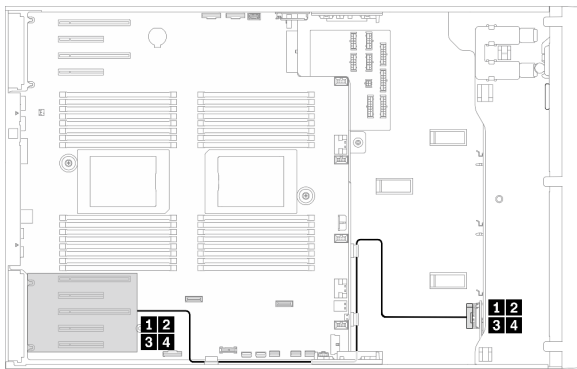


Figure 272. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

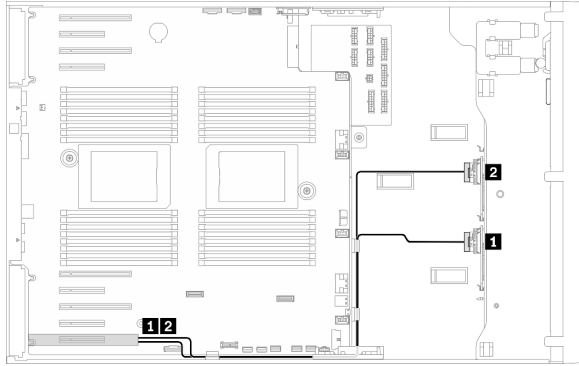


Figure 273. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP2: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP3: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)

## 2 x retimers + 1 x CFF RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

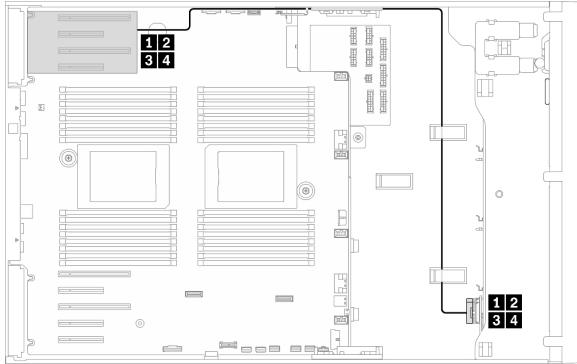


Figure 274. NVMe cable routing to top PCIe zone

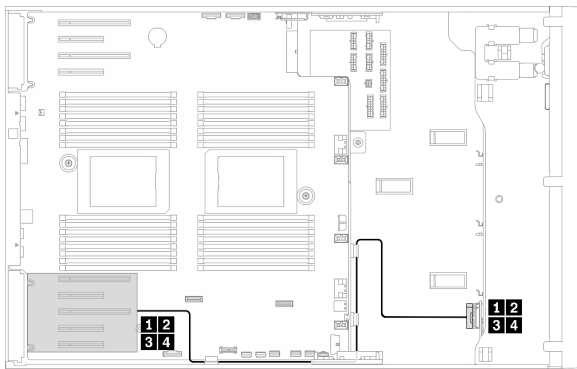


Figure 275. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

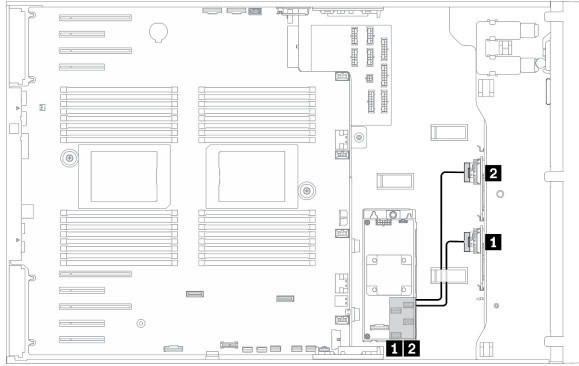


Figure 276. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP2: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
<b>2</b> BP3: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

## 2 x SAS/SATA + 2 x NVMe backplanes

This section lists the required components for server models with 2 x SAS/SATA + 2 x NVMe 2.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 2 x retimers + 1 x 8i RAID/HBA” on page 237](#)
- [“Onboard NVMe + 2 x retimers + 2 x 8i RAID/HBA” on page 239](#)
- [“Onboard NVMe + 2 x retimers + 1 x 16i RAID/HBA” on page 241](#)
- [“Onboard NVMe + 2 x retimers + 1 x 24i RAID/HBA” on page 243](#)
- [“Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA” on page 245](#)
- [“Onboard SATA + 4 x retimers + 1 x 8i RAID/HBA” on page 247](#)
- [“4 x retimers + 2 x 8i RAID/HBA” on page 249](#)
- [“4 x retimers + 1 x 16i RAID/HBA” on page 251](#)
- [“4 x retimers + 1 x 24i RAID/HBA” on page 253](#)
- [“4 x retimers + 1 x 32i RAID/HBA” on page 255](#)
- [“4 x retimers + 1 x CFF RAID/HBA” on page 257](#)

## Onboard NVMe/SATA + 2 x retimers + 1 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

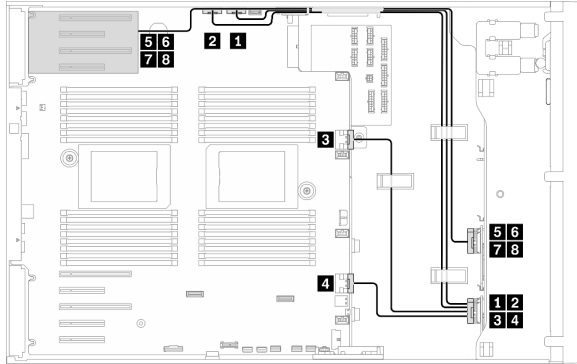


Figure 277. NVMe cable routing to system board and top PCIe zone

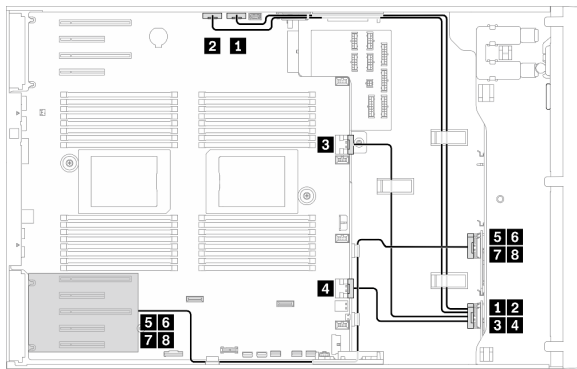


Figure 278. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

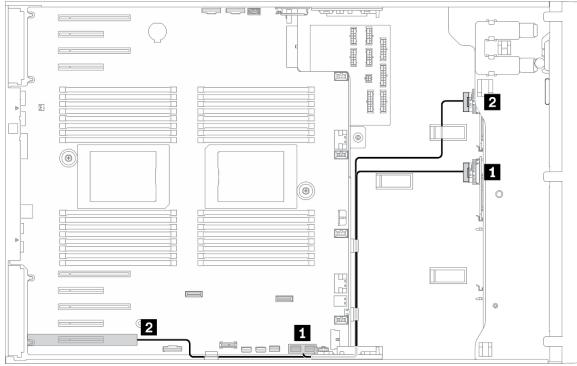


Figure 279. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>



## Onboard NVMe + 2 x retimers + 2 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

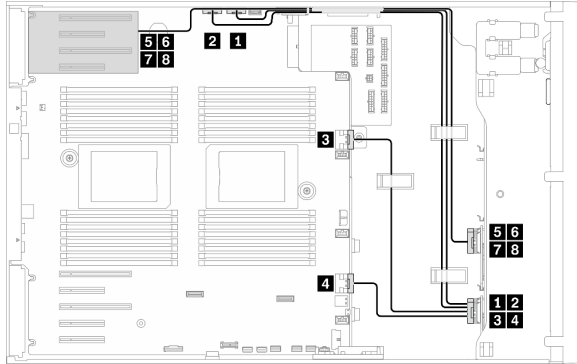


Figure 280. NVMe cable routing to system board and top PCIe zone

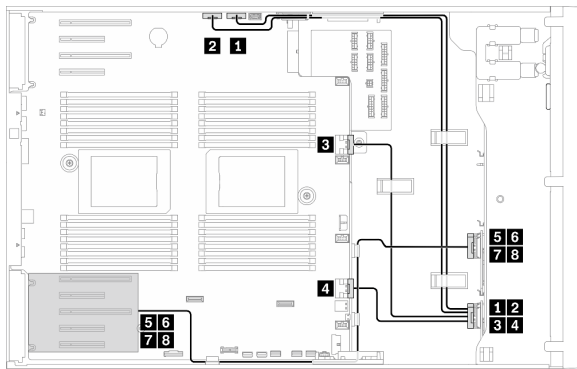


Figure 281. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

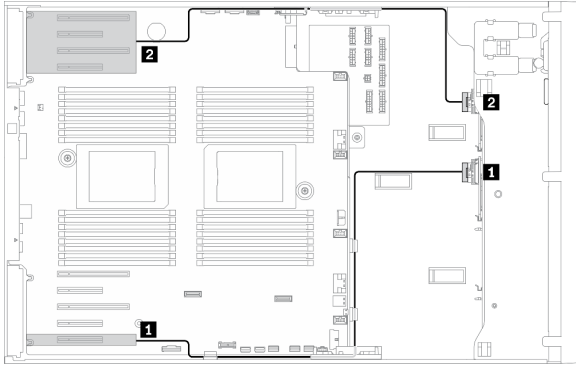


Figure 282. SAS/SATA cable routing to top PCIe zone

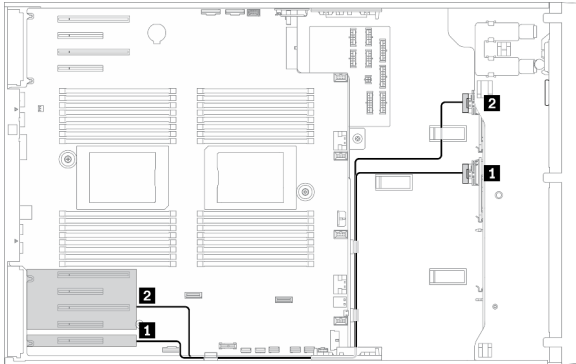


Figure 283. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

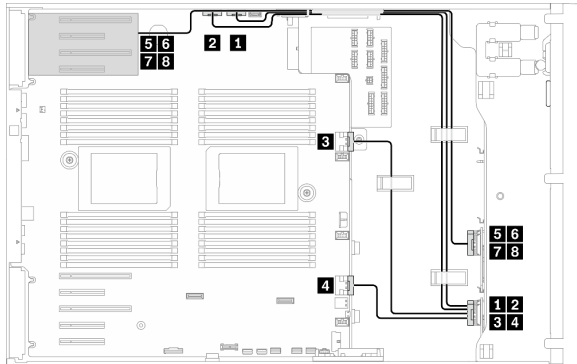


Figure 284. NVMe cable routing to system board and top PCIe zone

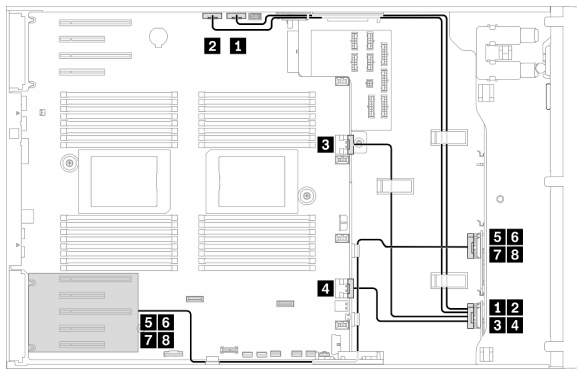


Figure 285. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

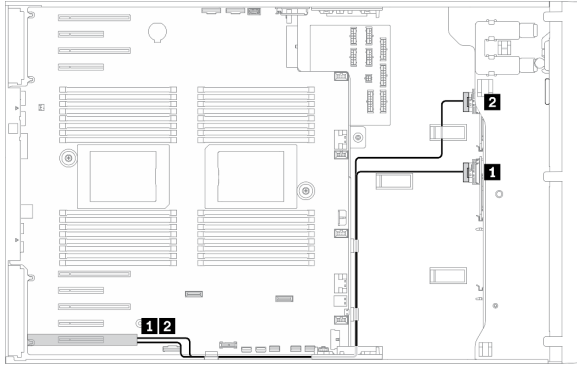


Figure 286. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

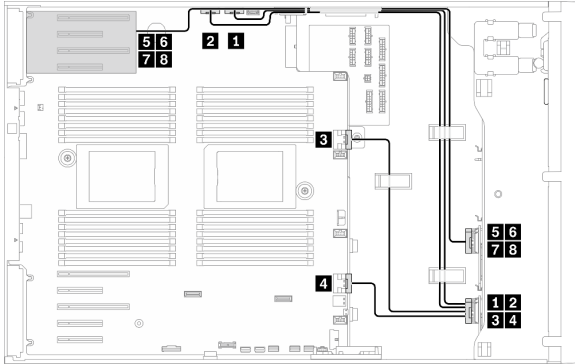


Figure 287. NVMe cable routing to system board and top PCIe zone

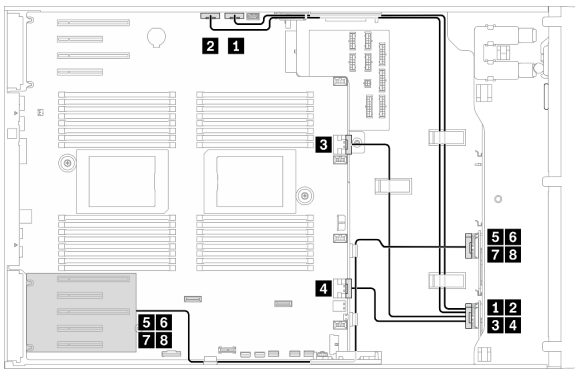


Figure 288. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

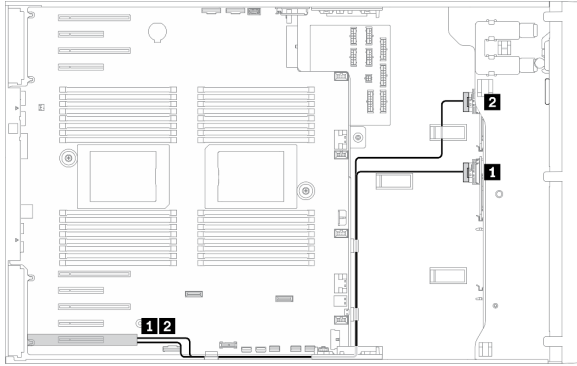


Figure 289. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)
<b>2</b> BP4: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

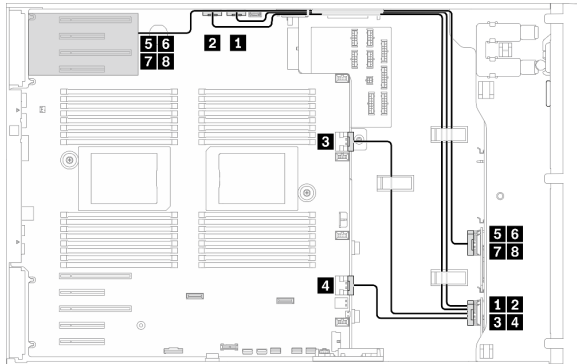


Figure 290. NVMe cable routing to system board and top PCIe zone

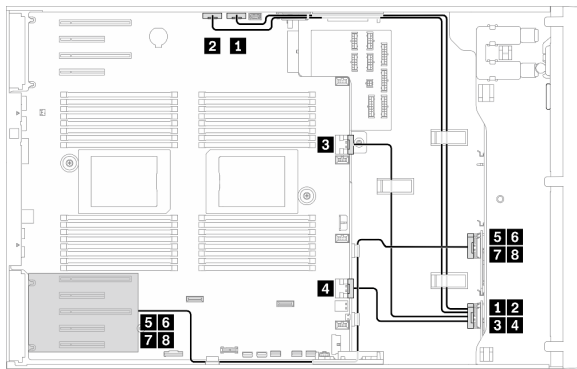


Figure 291. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

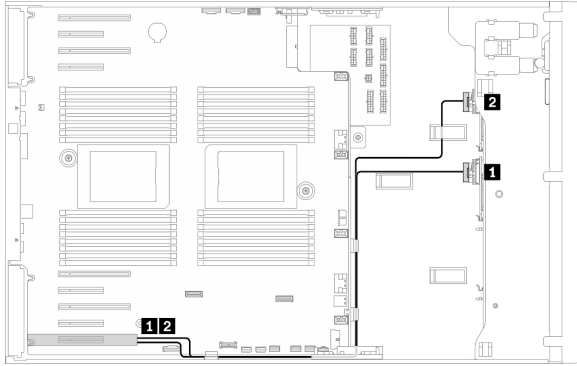


Figure 292. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP4: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (880 mm)



## Onboard SATA + 4 x retimers + 1 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

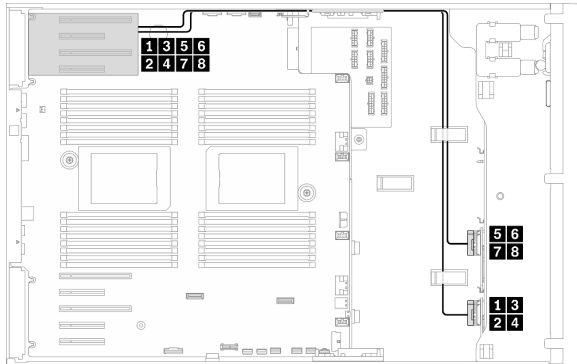


Figure 293. NVMe cable routing to top PCIe zone

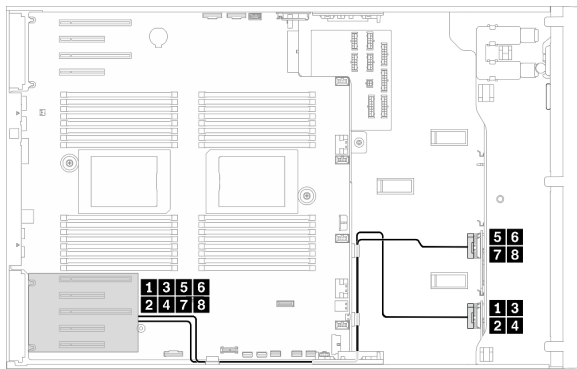


Figure 294. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

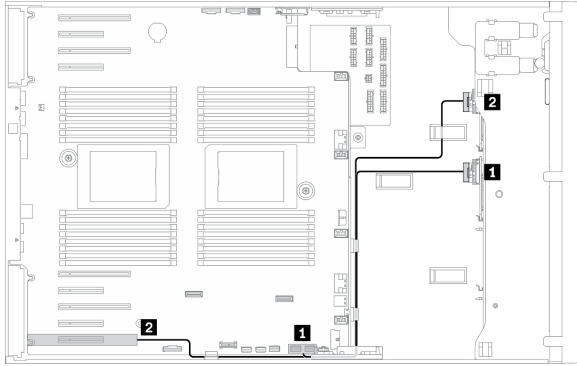


Figure 295. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP3: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 2 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

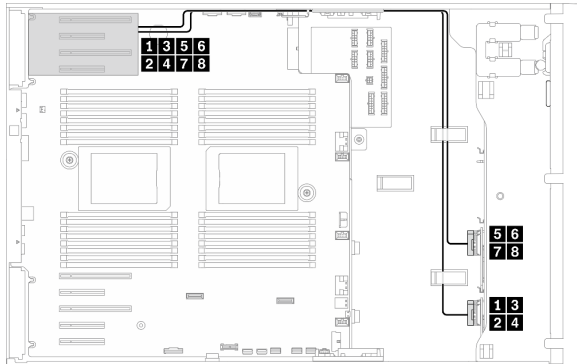


Figure 296. NVMe cable routing to top PCIe zone

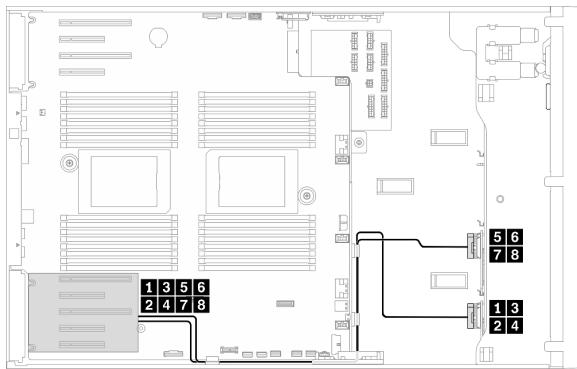


Figure 297. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

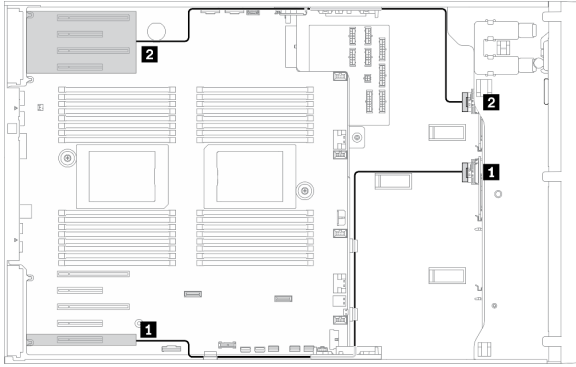


Figure 298. SAS/SATA cable routing to top PCIe zone

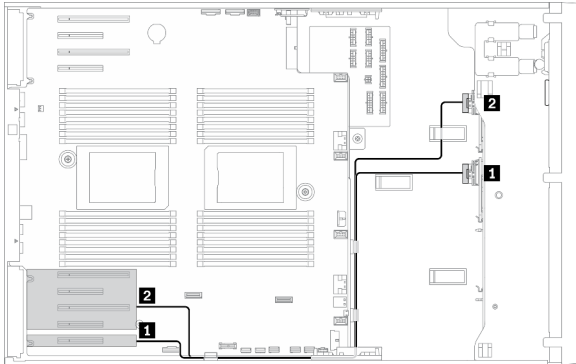


Figure 299. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

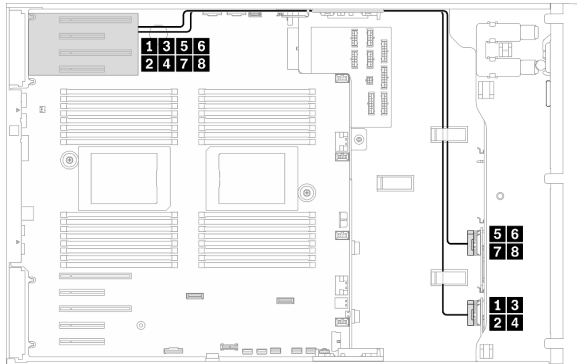


Figure 300. NVMe cable routing to top PCIe zone

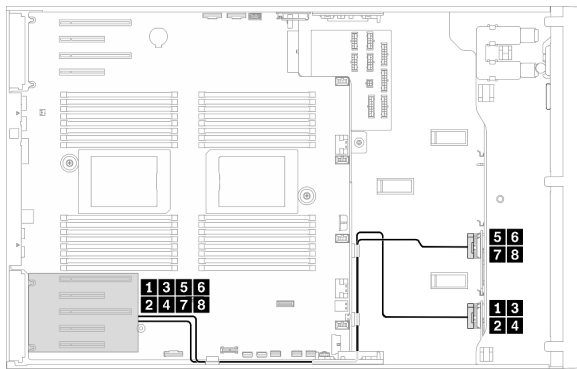


Figure 301. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

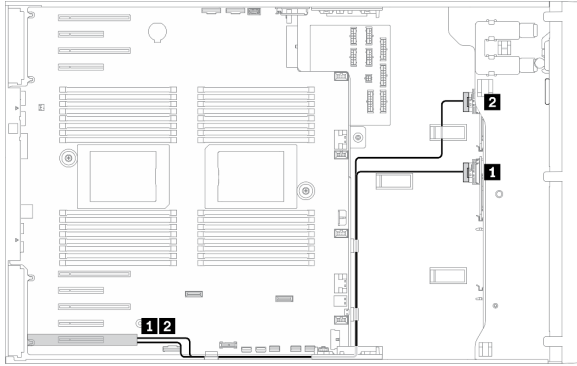


Figure 302. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

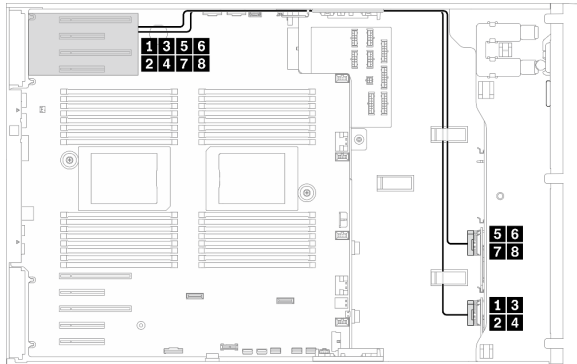


Figure 303. NVMe cable routing to top PCIe zone

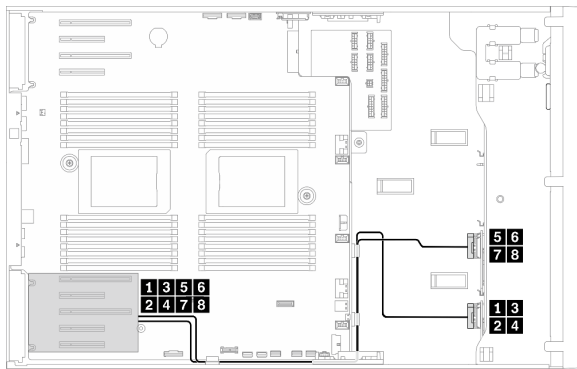


Figure 304. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

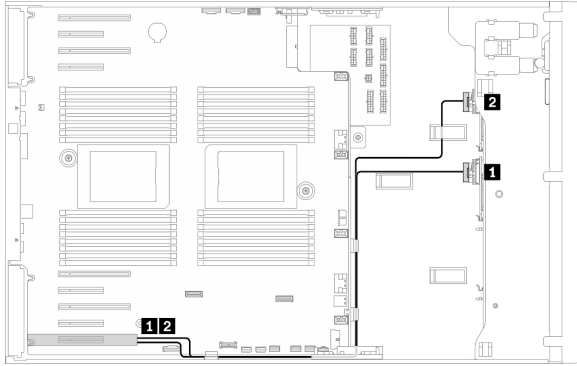


Figure 305. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)
<b>2</b> BP4: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)



## 4 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

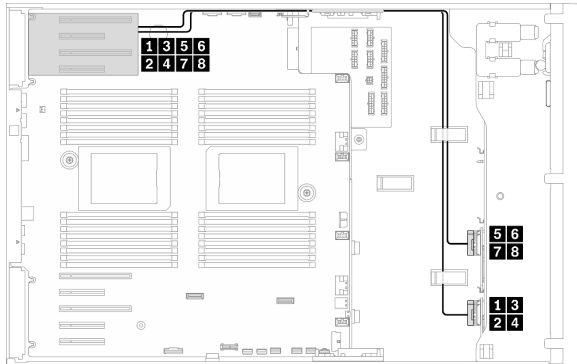


Figure 306. NVMe cable routing to top PCIe zone

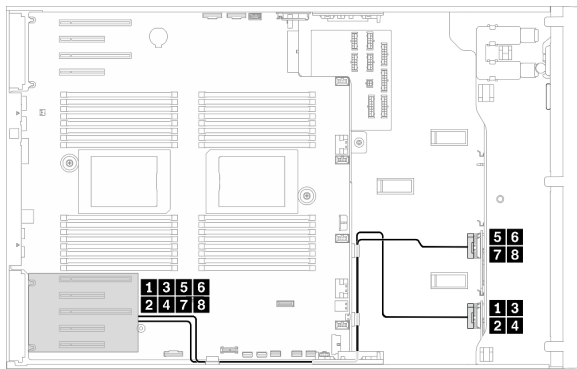


Figure 307. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

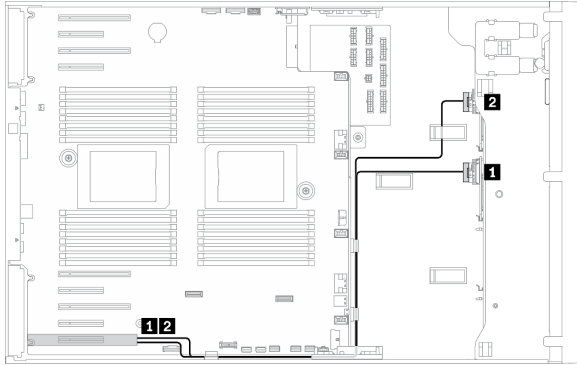


Figure 308. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP3: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP4: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (880 mm)

## 4 x retimers + 1 x CFF RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

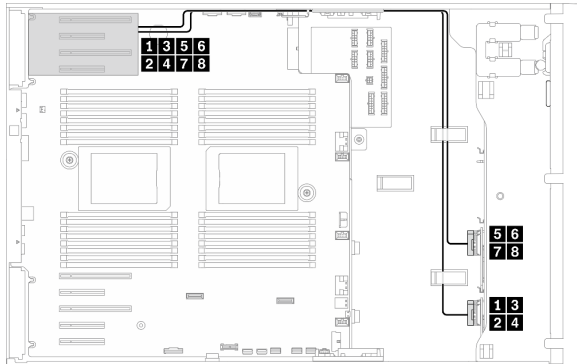


Figure 309. NVMe cable routing to top PCIe zone

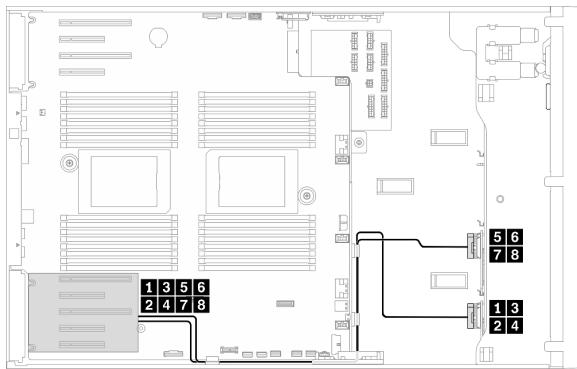


Figure 310. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

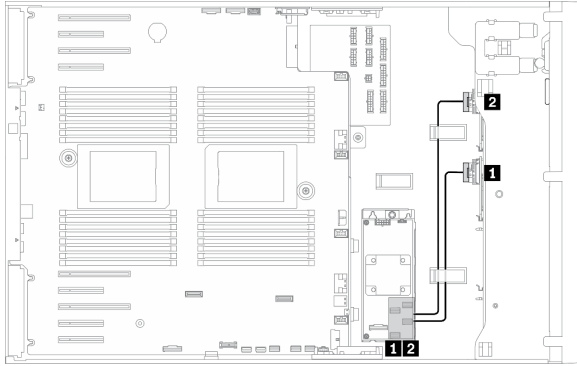


Figure 311. SAS/SATA cable routing to system board and CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP3: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP4: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

## 1 x SAS/SATA + 1 x AnyBay backplane

This section lists the required components for server models with 1 x SAS/SATA + 1 x AnyBay 2.5-inch hot-swap backplane.

### Notes:

- Connections between connectors: **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 2 x 8i RAID/HBA” on page 260](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 262](#)
- [“Onboard NVMe + 1 x 24i RAID/HBA” on page 264](#)
- [“Onboard NVMe + 1 x 32i RAID/HBA” on page 266](#)
- [“2 x retimers + 1 x CFF RAID/HBA” on page 268](#)

## Onboard NVMe + 2 x 8i RAID/HBA

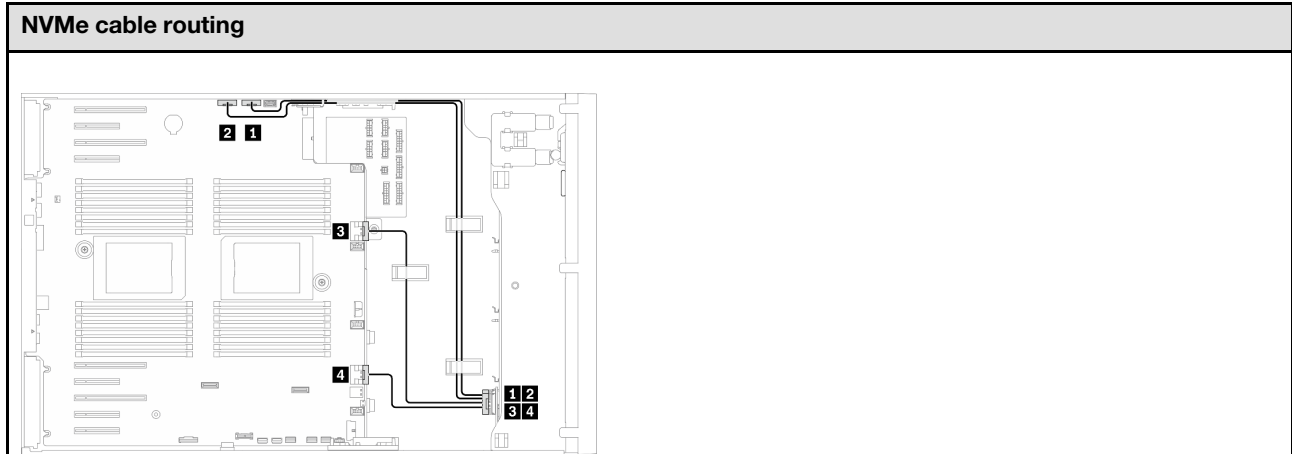


Figure 312. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

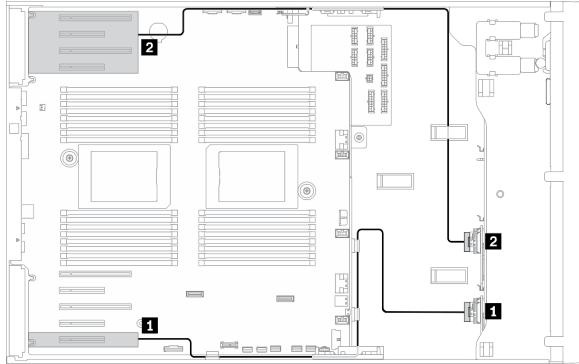


Figure 313. SAS/SATA cable routing to top PCIe zone

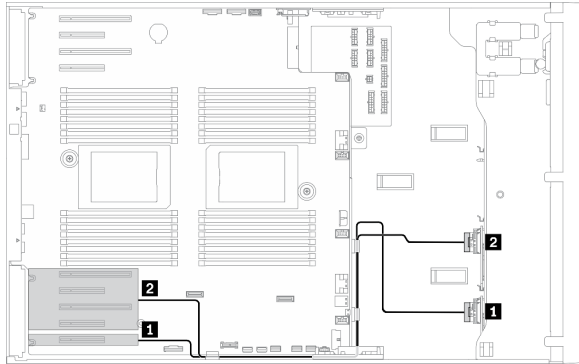


Figure 314. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 1 x 16i RAID/HBA

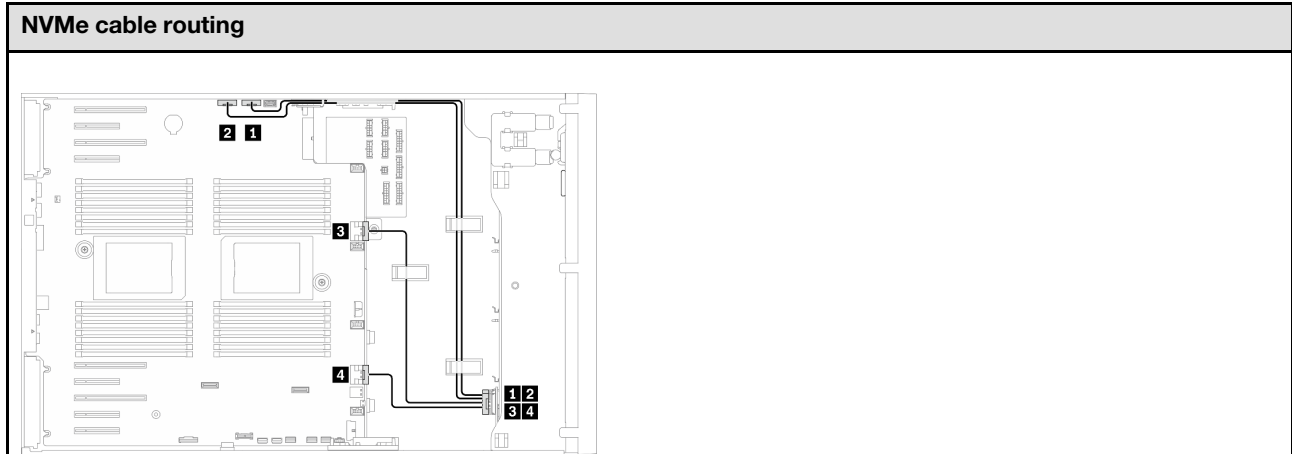


Figure 315. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	



## SAS/SATA cable routing

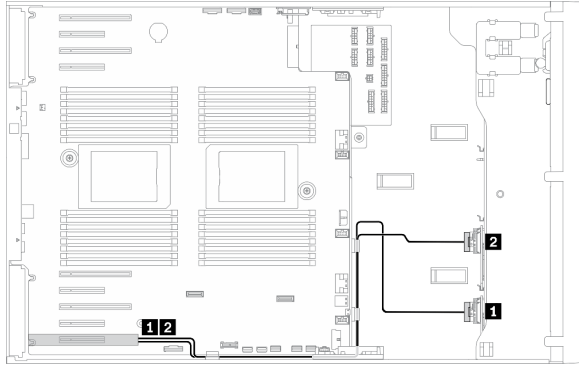


Figure 316. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 1 x 24i RAID/HBA

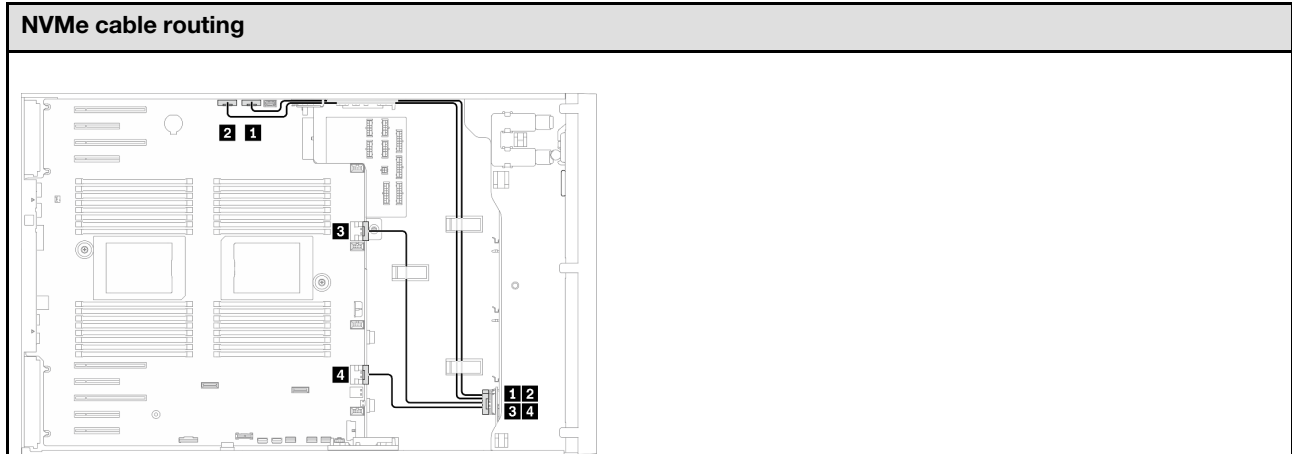


Figure 317. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

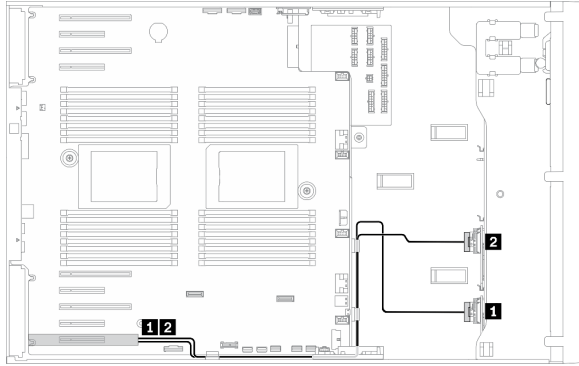


Figure 318. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

## Onboard NVMe + 1 x 32i RAID/HBA

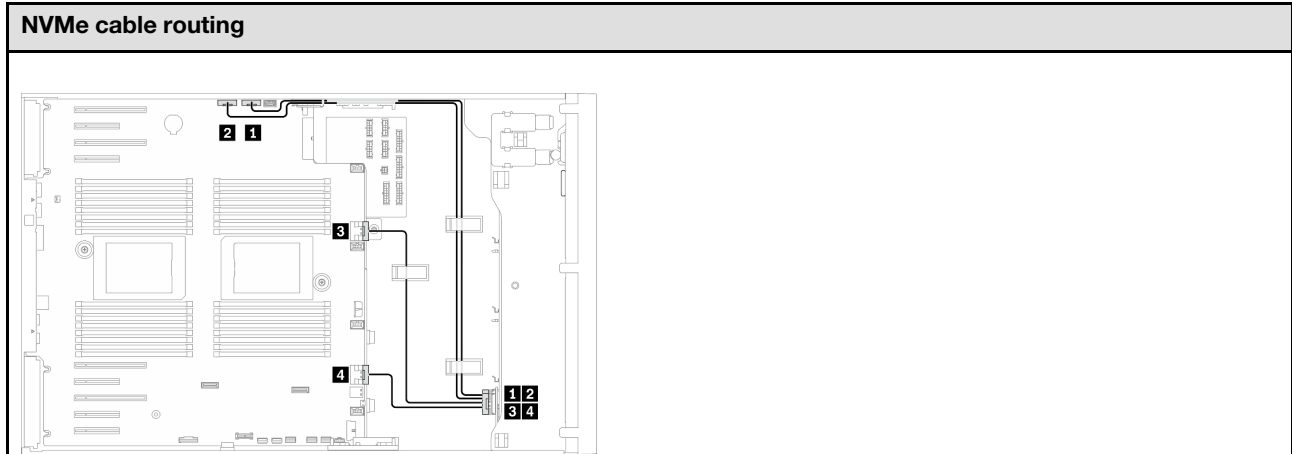


Figure 319. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

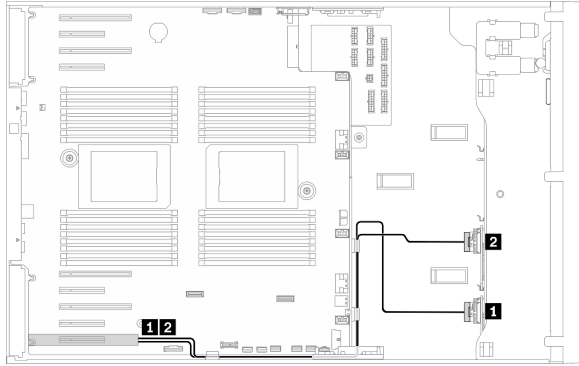


Figure 320. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)

## 2 x retimers + 1 x CFF RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

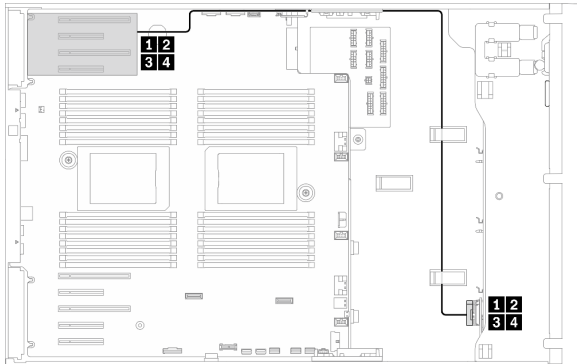


Figure 321. NVMe cable routing to top PCIe zone

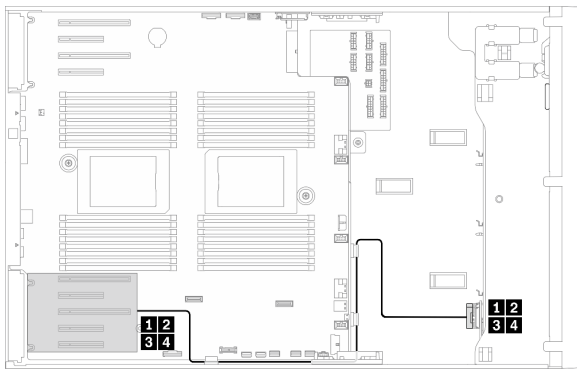


Figure 322. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

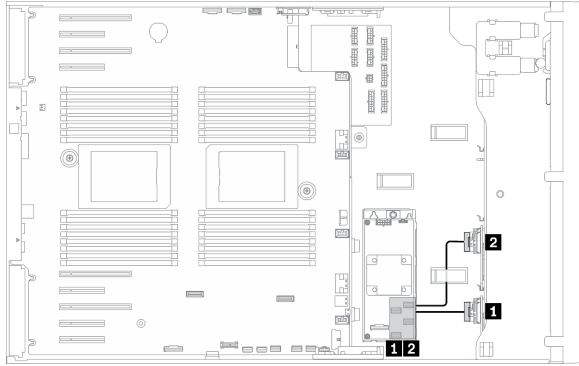


Figure 323. SAS/SATA cable routing to system board and CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)

## 1 x SAS/SATA + 2 x AnyBay backplanes

This section lists the required components for server models with 1 x SAS/SATA + 2 x AnyBay 2.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 2 x retimers + 2 x 8i RAID/HBA” on page 271](#)
- [“Onboard NVMe/SATA + 2 x retimers + 1 x 16i RAID/HBA” on page 273](#)
- [“Onboard NVMe/SATA + 2 x retimers + 1 x 24i RAID/HBA” on page 275](#)
- [“Onboard NVMe + 2 x retimers + 3 x 8i RAID/HBA” on page 277](#)
- [“Onboard NVMe + 2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 279](#)
- [“Onboard NVMe + 2 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 281](#)
- [“Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA” on page 283](#)
- [“Onboard SATA + 4 x retimers + 2 x 8i RAID/HBA” on page 285](#)
- [“Onboard SATA + 4 x retimers + 1 x 16i RAID/HBA” on page 287](#)
- [“Onboard SATA + 4 x retimers + 1 x 24i RAID/HBA” on page 289](#)
- [“Onboard SATA + 4 x retimers + 1 x CFF RAID/HBA” on page 291](#)
- [“4 x retimers + 3 x 8i RAID/HBA” on page 293](#)
- [“4 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 295](#)
- [“4 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 297](#)
- [“4 x retimers + 1 x 32i RAID/HBA” on page 299](#)



## Onboard NVMe/SATA + 2 x retimers + 2 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

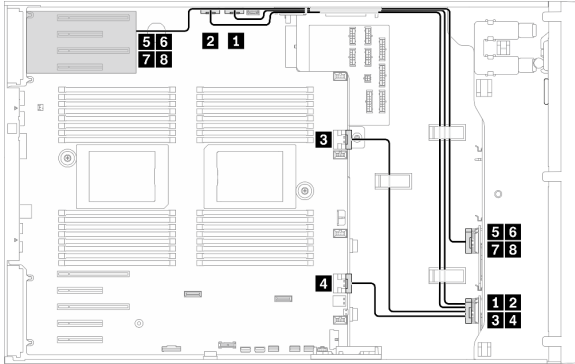


Figure 324. NVMe cable routing to system board and top PCIe zone

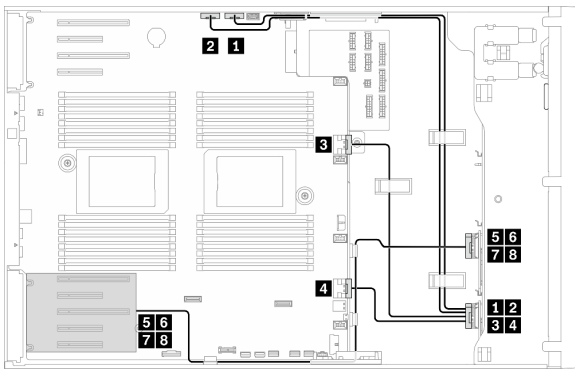


Figure 325. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

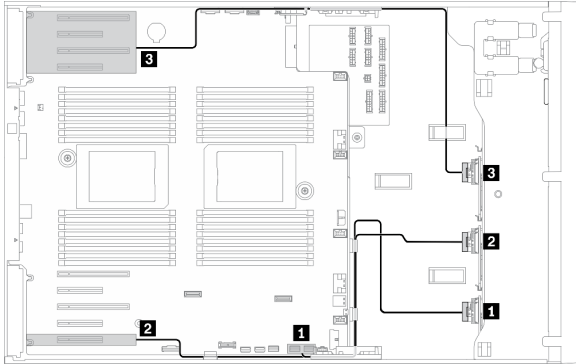


Figure 326. SAS/SATA cable routing to system board and top PCIe zone

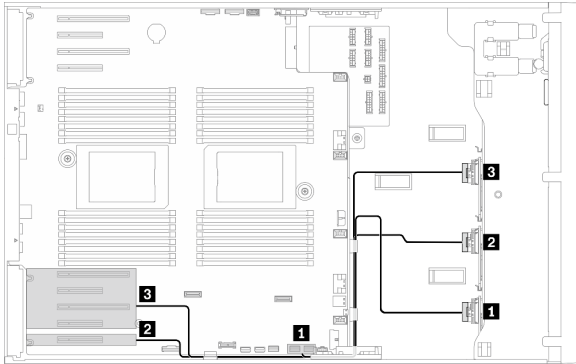


Figure 327. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe/SATA + 2 x retimers + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

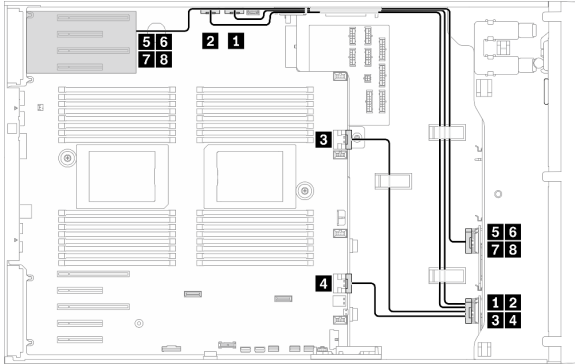


Figure 328. NVMe cable routing to system board and top PCIe zone

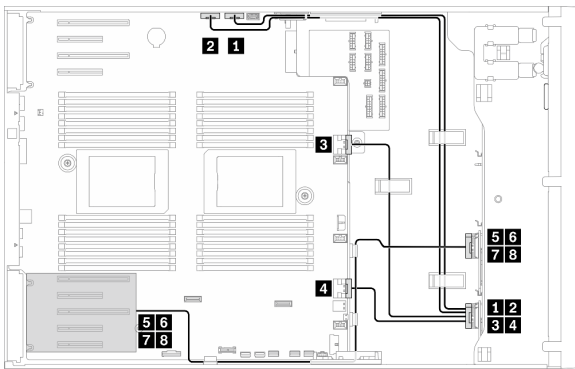


Figure 329. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

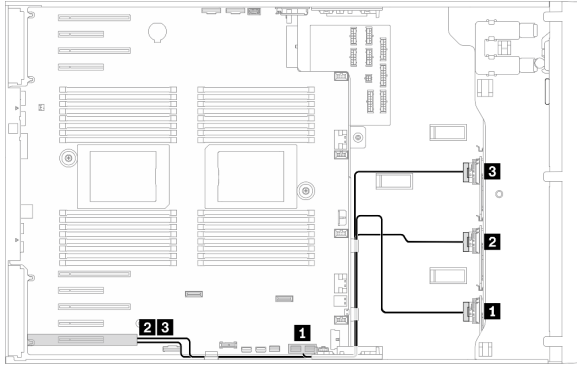


Figure 330. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe/SATA + 2 x retimers + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

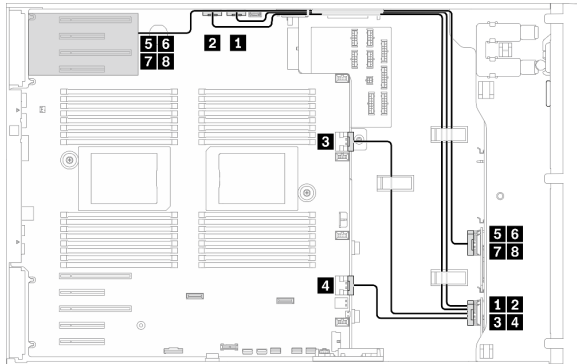


Figure 331. NVMe cable routing to system board and top PCIe zone

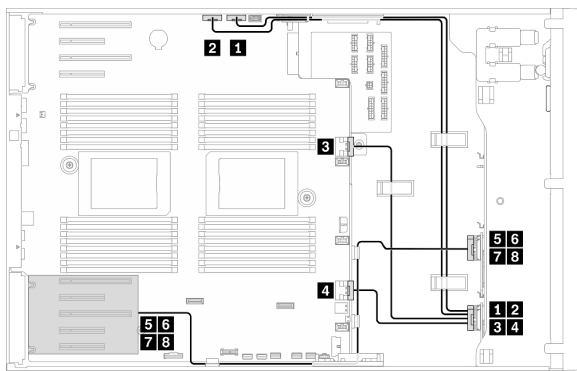


Figure 332. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

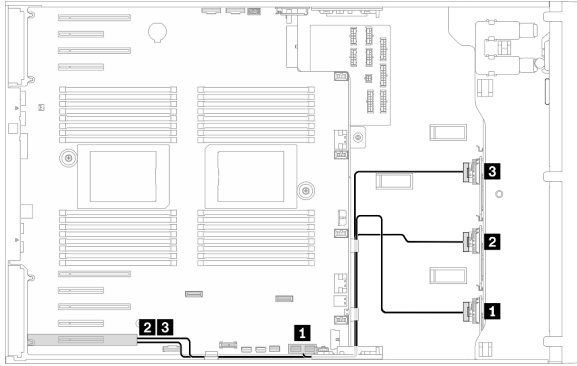


Figure 333. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## Onboard NVMe + 2 x retimers + 3 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

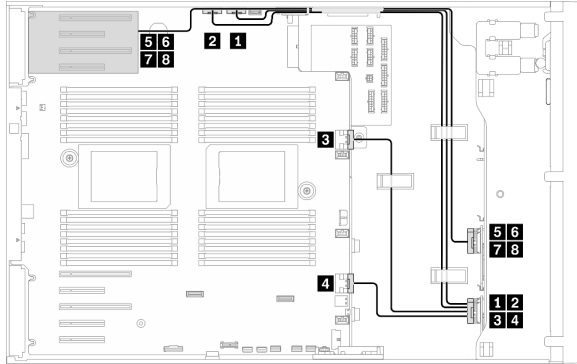


Figure 334. NVMe cable routing to system board and top PCIe zone

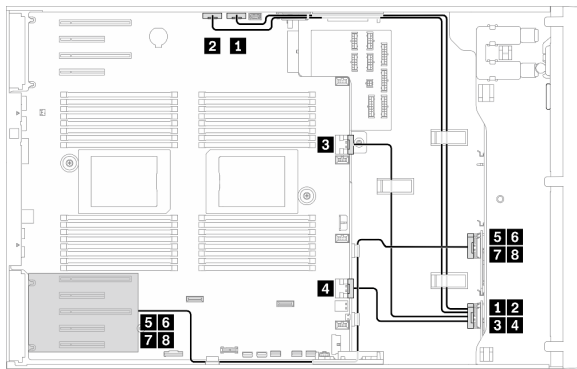


Figure 335. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

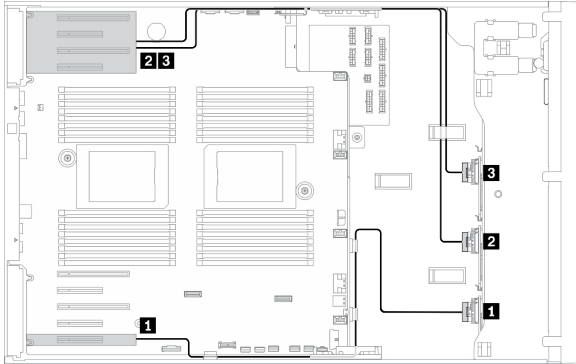


Figure 336. SAS/SATA cable routing to top PCIe zone

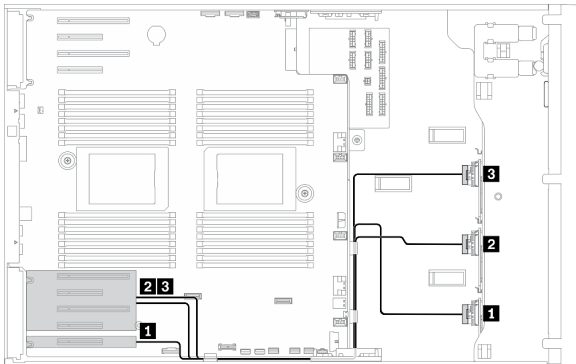


Figure 337. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>



## Onboard NVMe + 2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

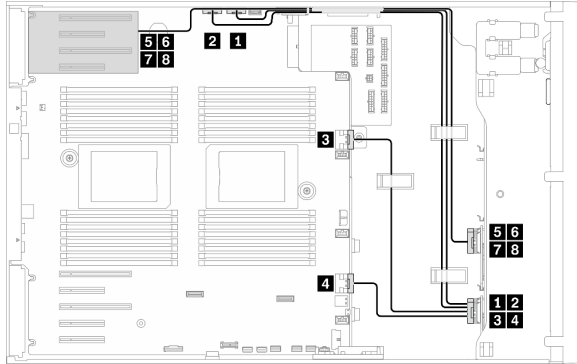


Figure 338. NVMe cable routing to system board and top PCIe zone

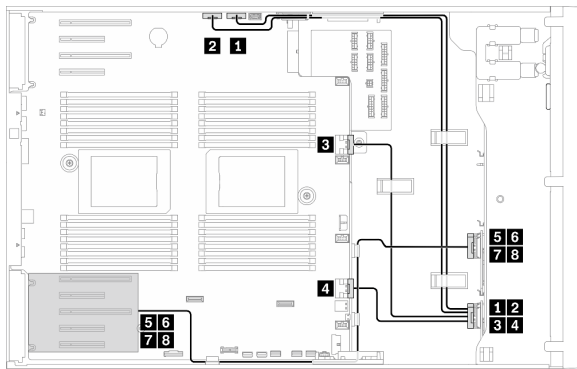


Figure 339. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

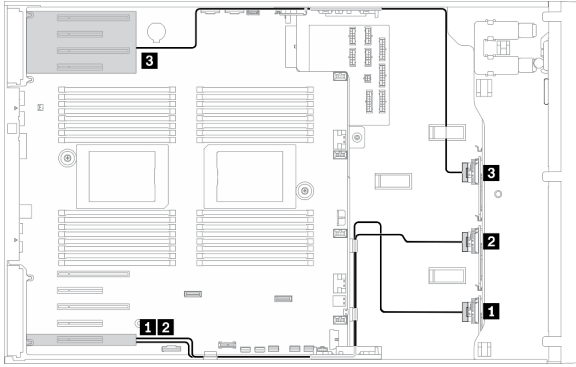


Figure 340. SAS/SATA cable routing to top PCIe zone

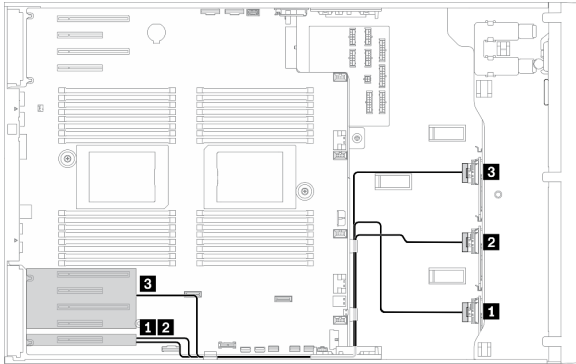


Figure 341. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

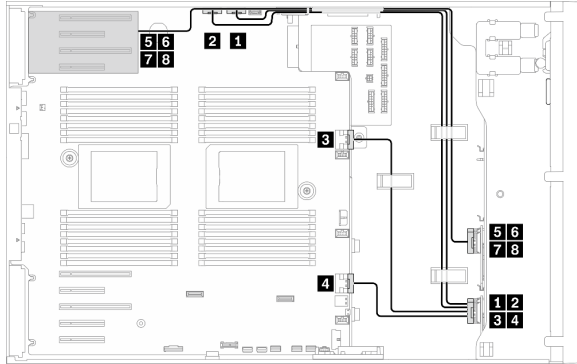


Figure 342. NVMe cable routing to system board and top PCIe zone

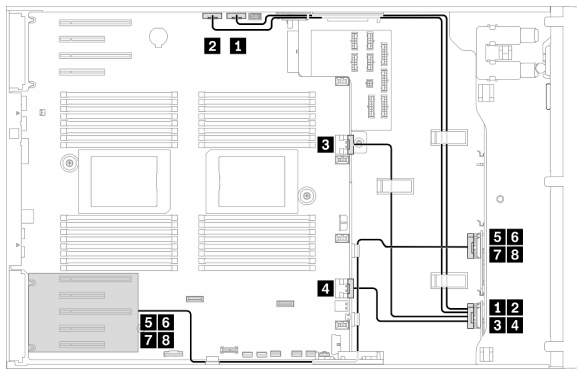


Figure 343. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

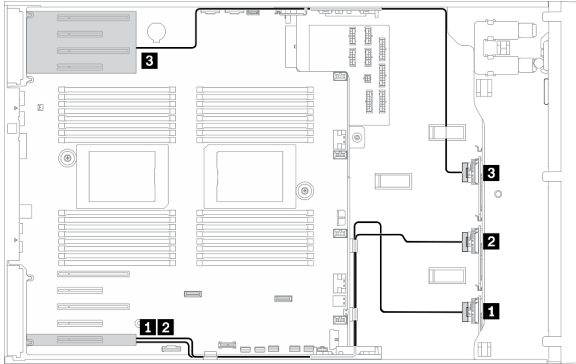


Figure 344. SAS/SATA cable routing to top PCIe zone

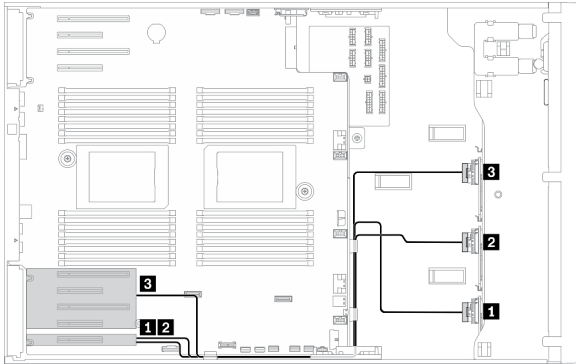


Figure 345. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

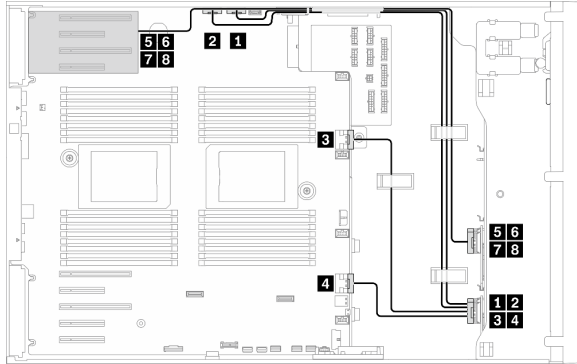


Figure 346. NVMe cable routing to system board and top PCIe zone

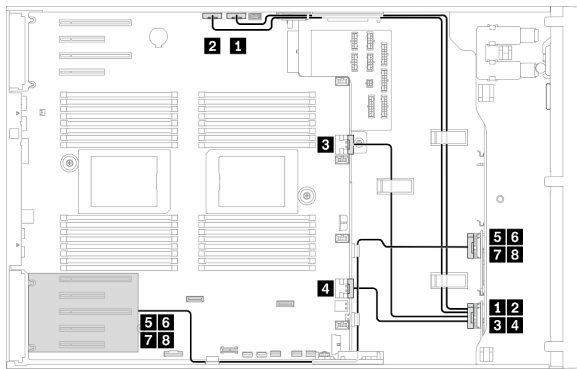


Figure 347. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

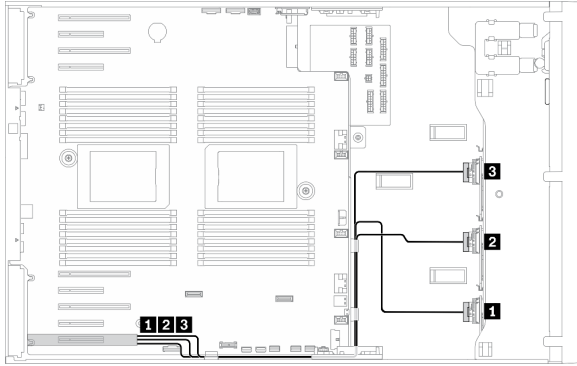


Figure 348. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>3</b> BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)

## Onboard SATA + 4 x retimers + 2 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

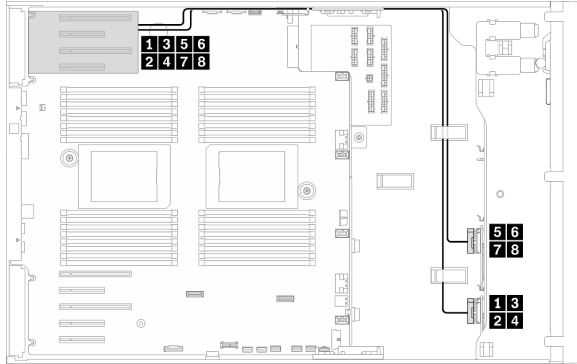


Figure 349. NVMe cable routing to top PCIe zone

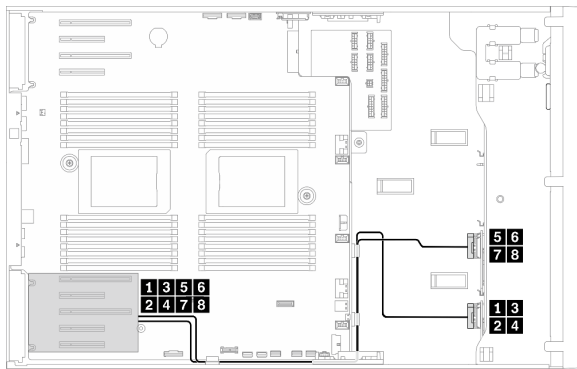


Figure 350. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

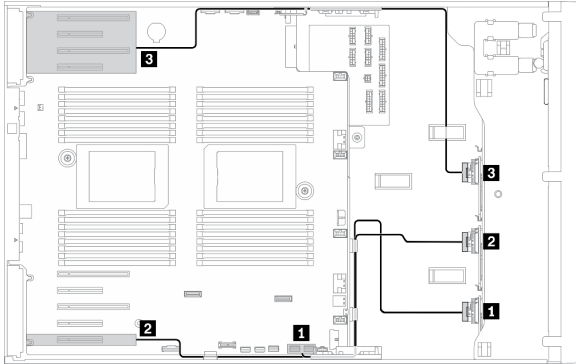


Figure 351. SAS/SATA cable routing to system board and top PCIe zone

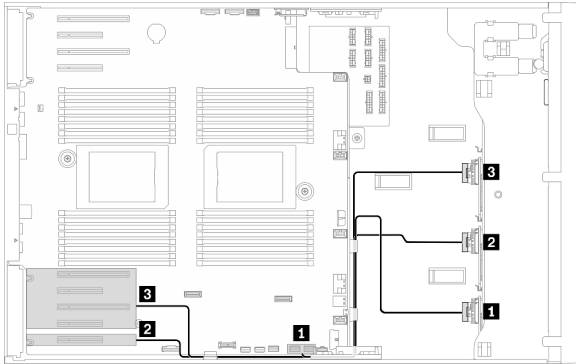


Figure 352. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>



## Onboard SATA + 4 x retimers + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

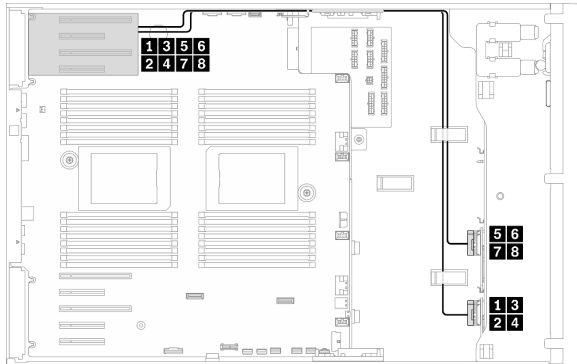


Figure 353. NVMe cable routing to top PCIe zone

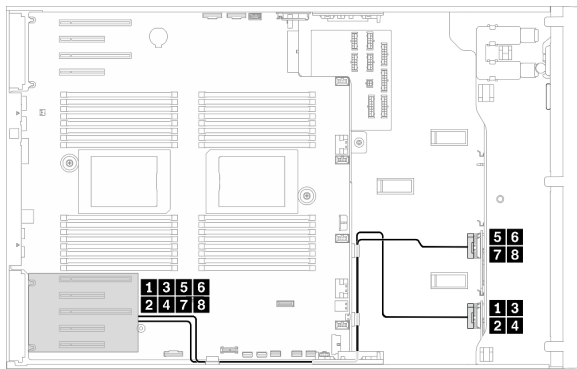


Figure 354. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

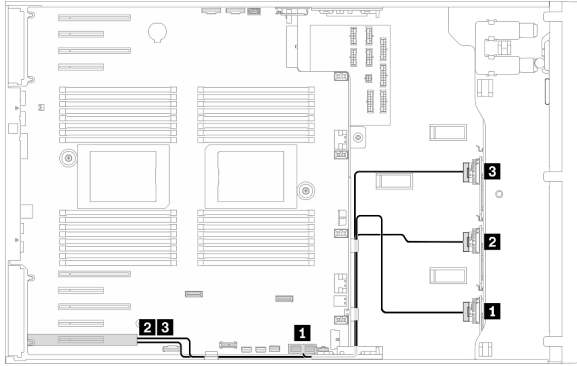


Figure 355. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard SATA + 4 x retimers + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

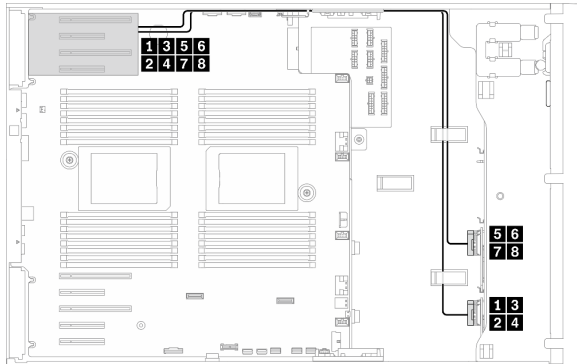


Figure 356. NVMe cable routing to top PCIe zone

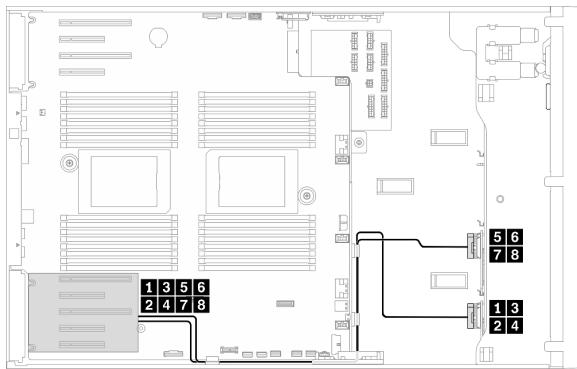


Figure 357. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

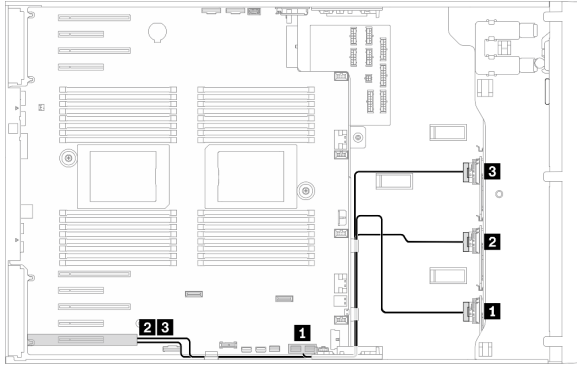


Figure 358. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## Onboard SATA + 4 x retimers + 1 x CFF RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

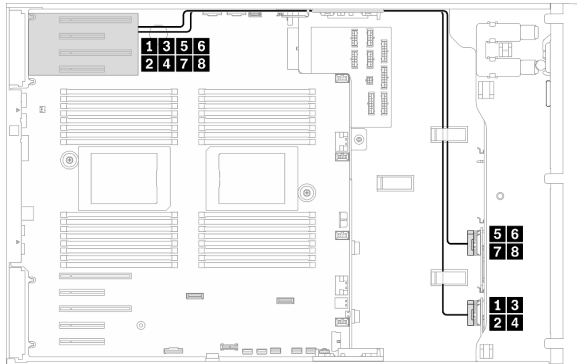


Figure 359. NVMe cable routing to top PCIe zone

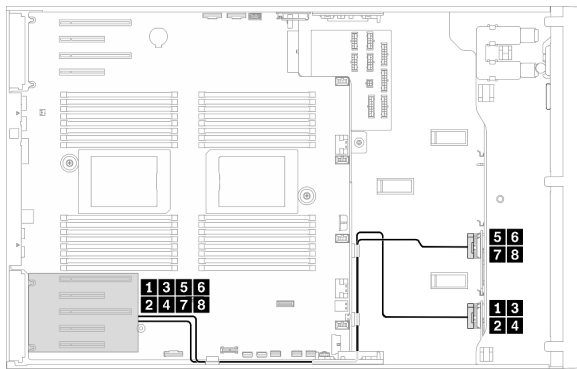


Figure 360. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

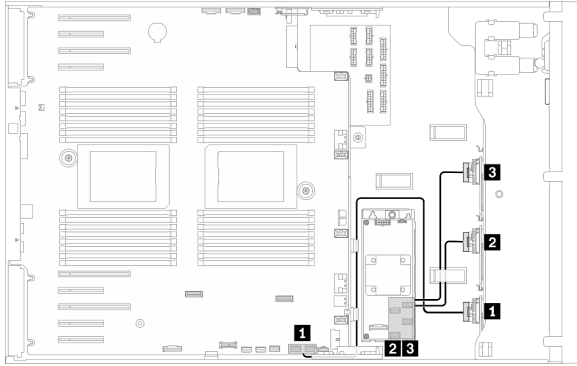


Figure 361. SAS/SATA cable routing to system board and CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
<b>3</b> BP3: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

## 4 x retimers + 3 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

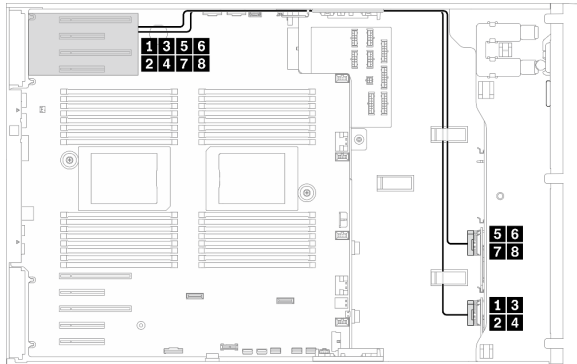


Figure 362. NVMe cable routing to top PCIe zone

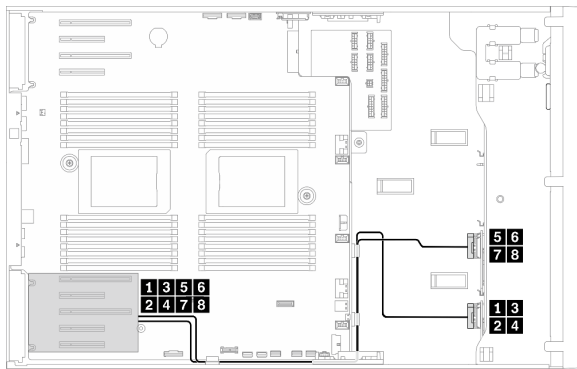


Figure 363. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

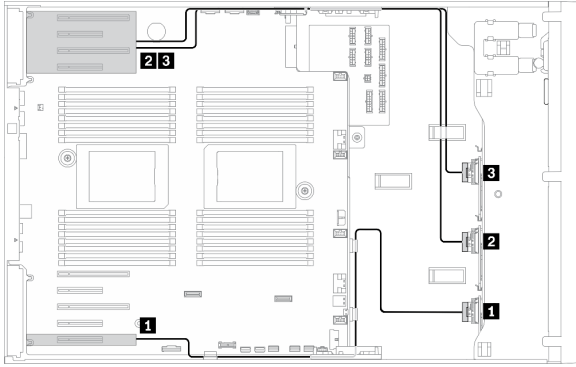


Figure 364. SAS/SATA cable routing to top PCIe zone

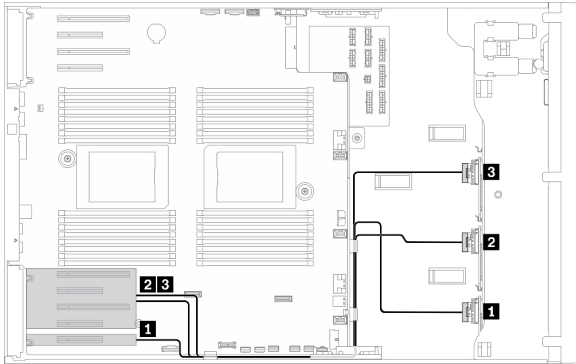


Figure 365. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>



## 4 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

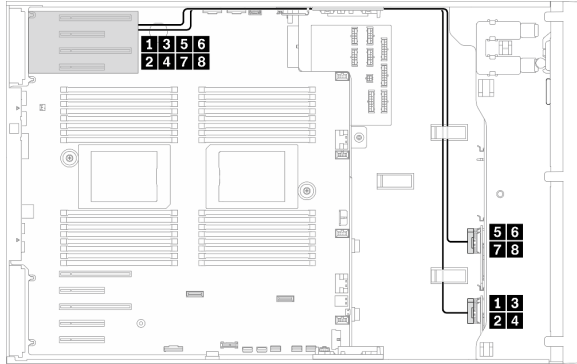


Figure 366. NVMe cable routing to top PCIe zone

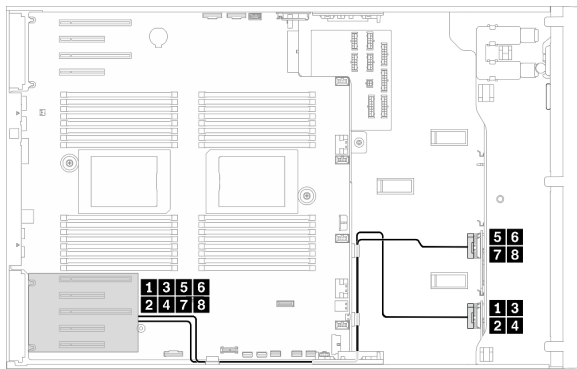


Figure 367. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

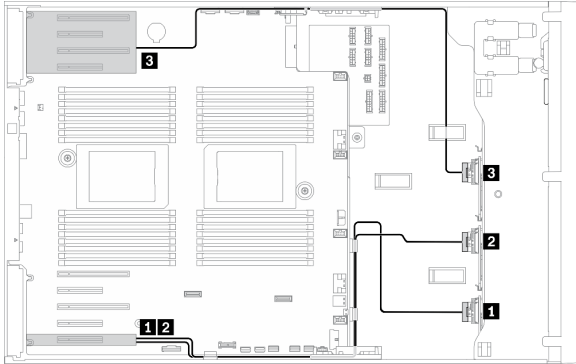


Figure 368. SAS/SATA cable routing to top PCIe zone

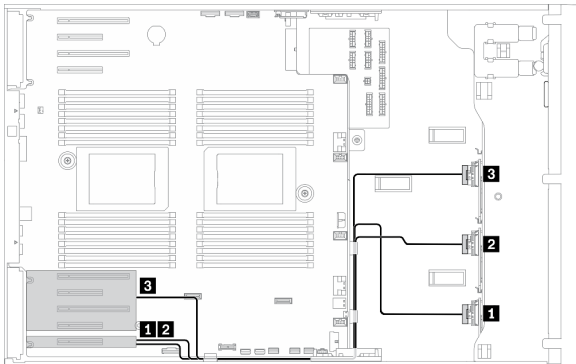


Figure 369. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

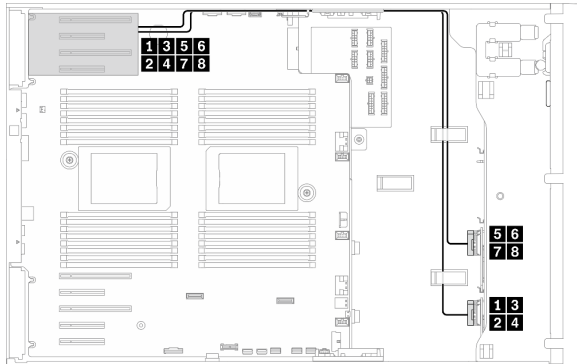


Figure 370. NVMe cable routing to top PCIe zone

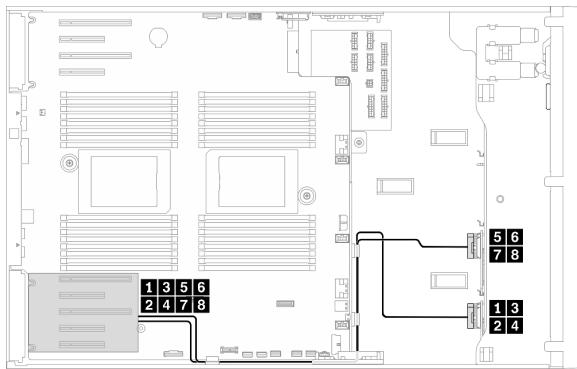


Figure 371. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

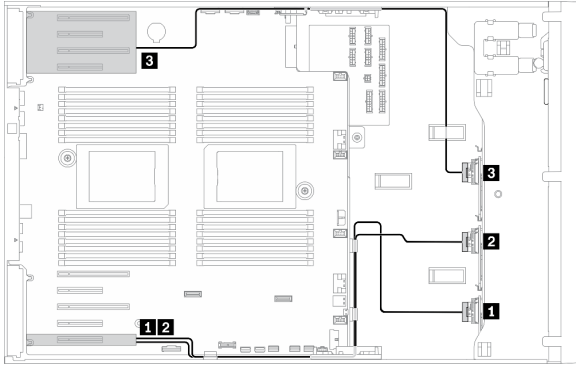


Figure 372. SAS/SATA cable routing to top PCIe zone

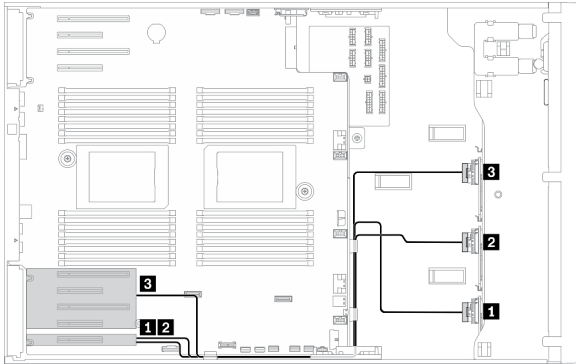


Figure 373. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

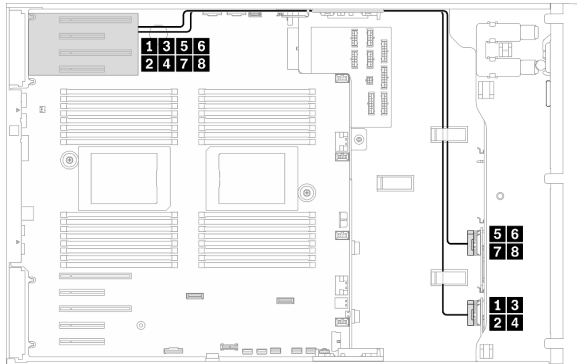


Figure 374. NVMe cable routing to top PCIe zone

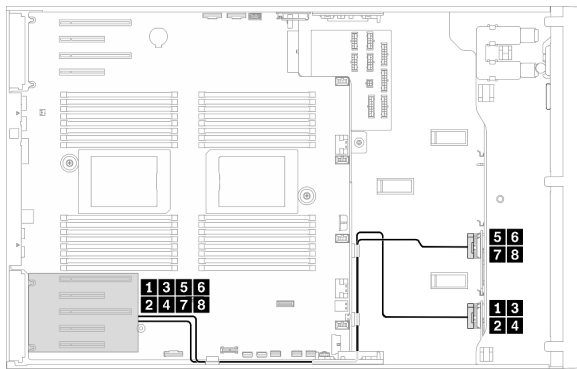


Figure 375. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

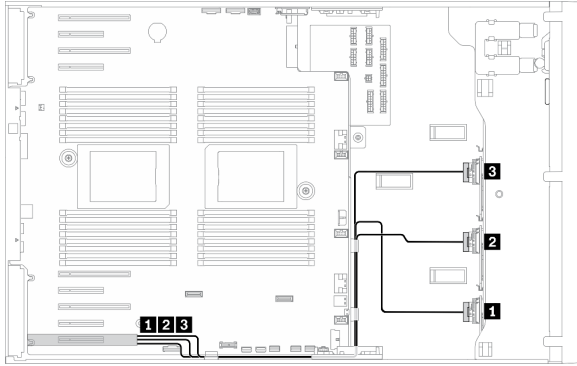


Figure 376. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>3</b> BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)

## 2 x SAS/SATA + 1 x AnyBay backplane

This section lists the required components for server models with 2 x SAS/SATA + 1 x AnyBay 2.5-inch hot-swap backplane.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 2 x 8i RAID/HBA” on page 302](#)
- [“Onboard NVMe/SATA + 1 x 16i RAID/HBA” on page 304](#)
- [“Onboard NVMe/SATA + 1 x 24i RAID/HBA” on page 306](#)
- [“Onboard NVMe + 3 x 8i RAID/HBA” on page 308](#)
- [“Onboard NVMe + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 310](#)
- [“Onboard NVMe + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 312](#)
- [“Onboard NVMe + 1 x 32i RAID/HBA” on page 314](#)
- [“Onboard SATA + 2 x retimers + 2 x 8i RAID/HBA” on page 316](#)
- [“Onboard SATA + 2 x retimers + 1 x 16i RAID/HBA” on page 318](#)
- [“Onboard SATA + 2 x retimers + 1 x 24i RAID/HBA” on page 320](#)
- [“Onboard SATA + 2 x retimers + 1 x CFF RAID/HBA” on page 322](#)
- [“2 x retimers + 3 x 8i RAID/HBA” on page 324](#)
- [“2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 326](#)
- [“2 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 328](#)
- [“2 x retimers + 1 x 32i RAID/HBA” on page 330](#)

## Onboard NVMe/SATA + 2 x 8i RAID/HBA

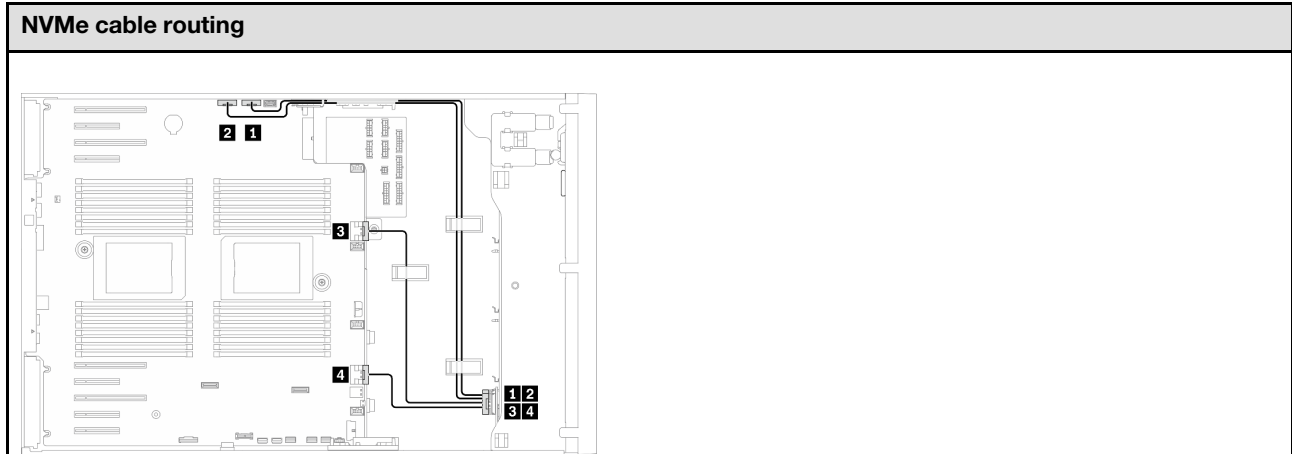


Figure 377. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

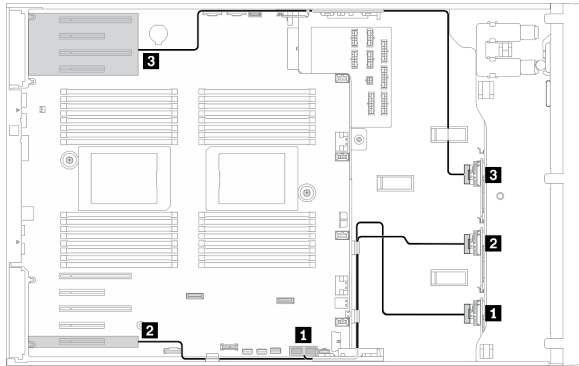


Figure 378. SAS/SATA cable routing to system board and top PCIe zone

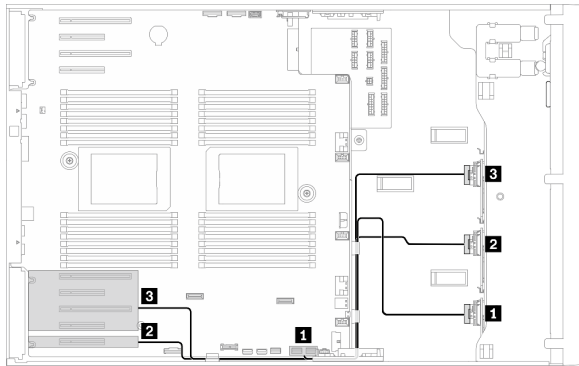


Figure 379. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe/SATA + 1 x 16i RAID/HBA

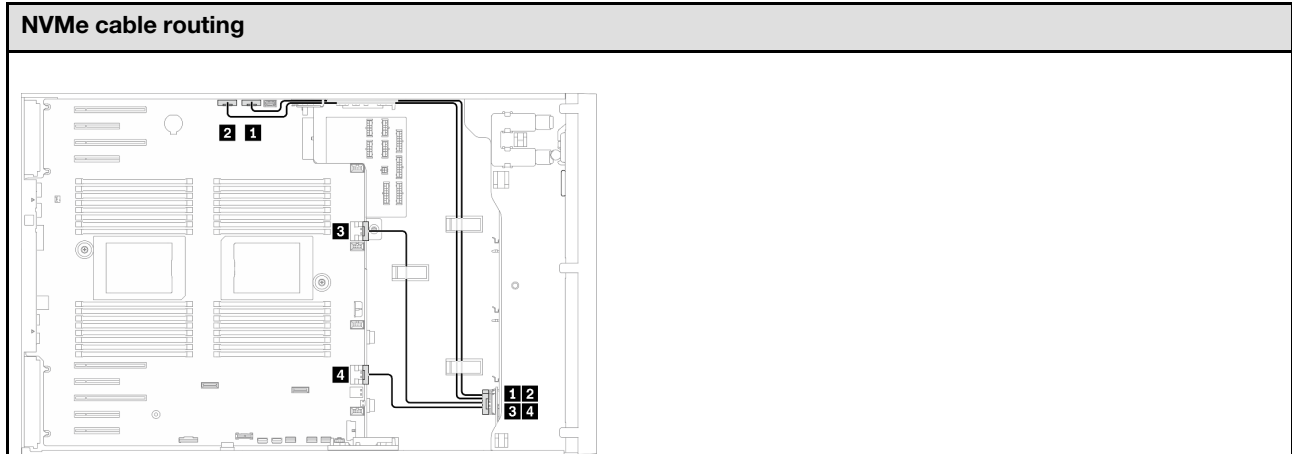


Figure 380. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

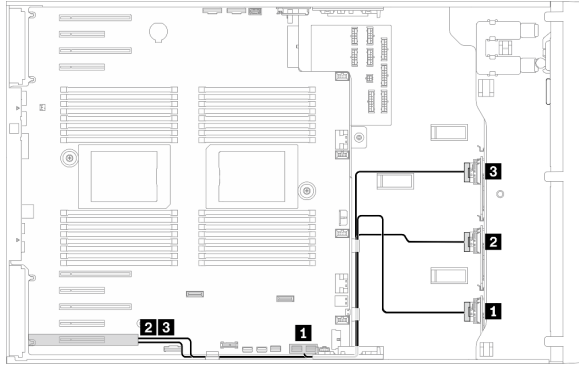


Figure 381. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe/SATA + 1 x 24i RAID/HBA

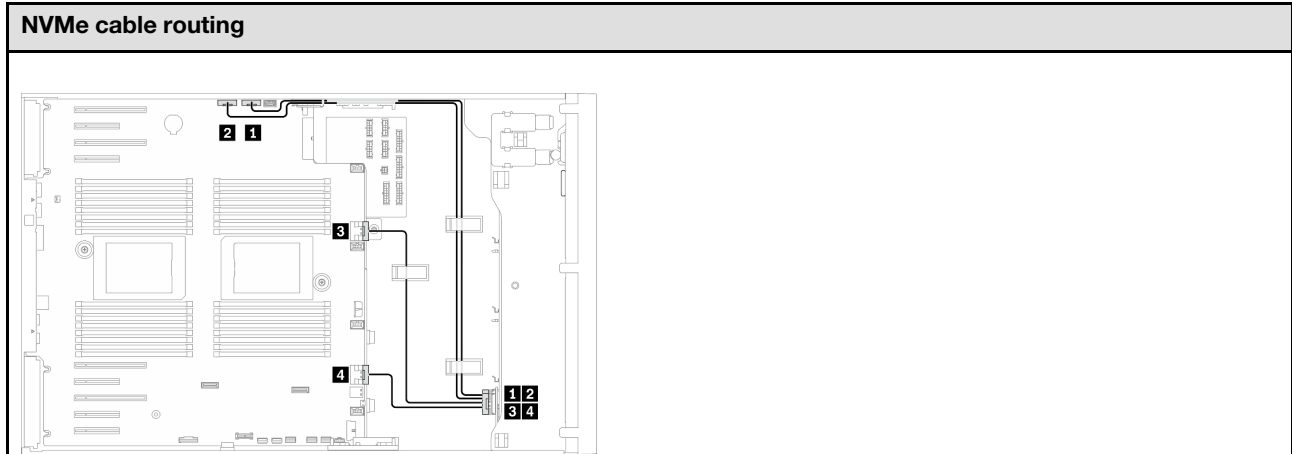


Figure 382. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

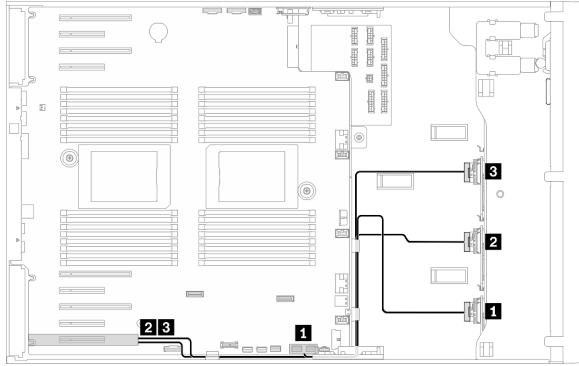


Figure 383. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## Onboard NVMe + 3 x 8i RAID/HBA

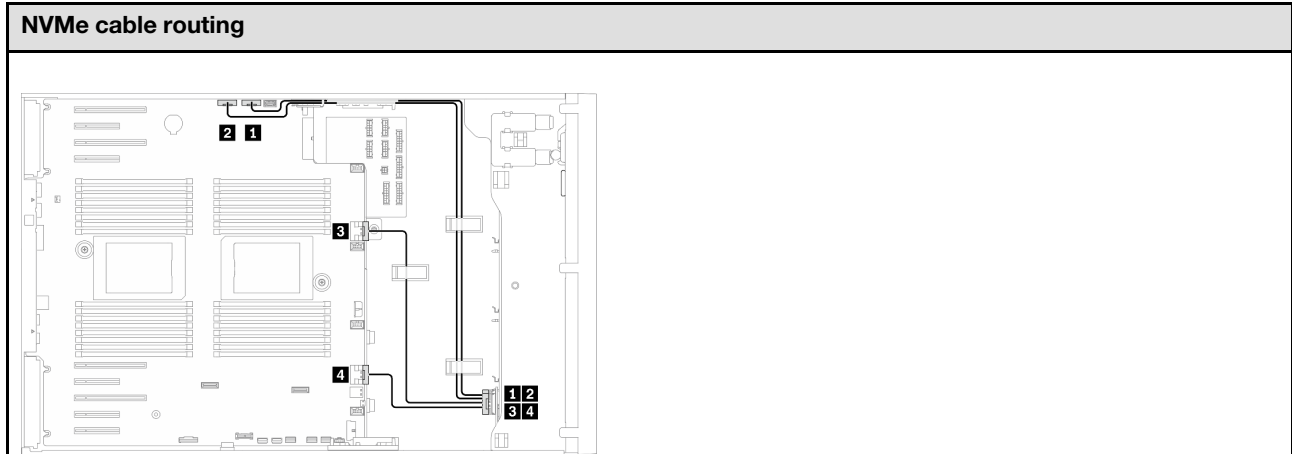


Figure 384. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

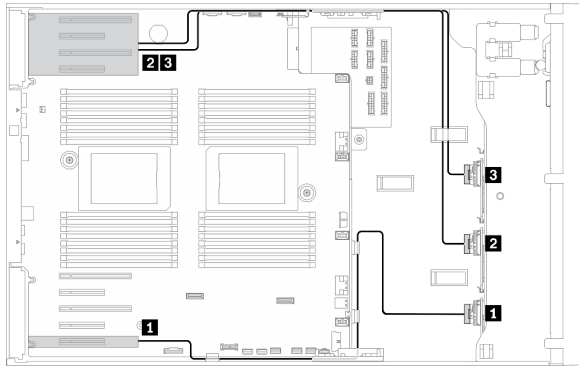


Figure 385. SAS/SATA cable routing to top PCIe zone

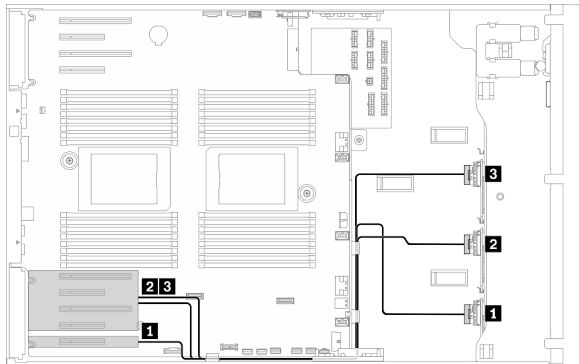


Figure 386. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

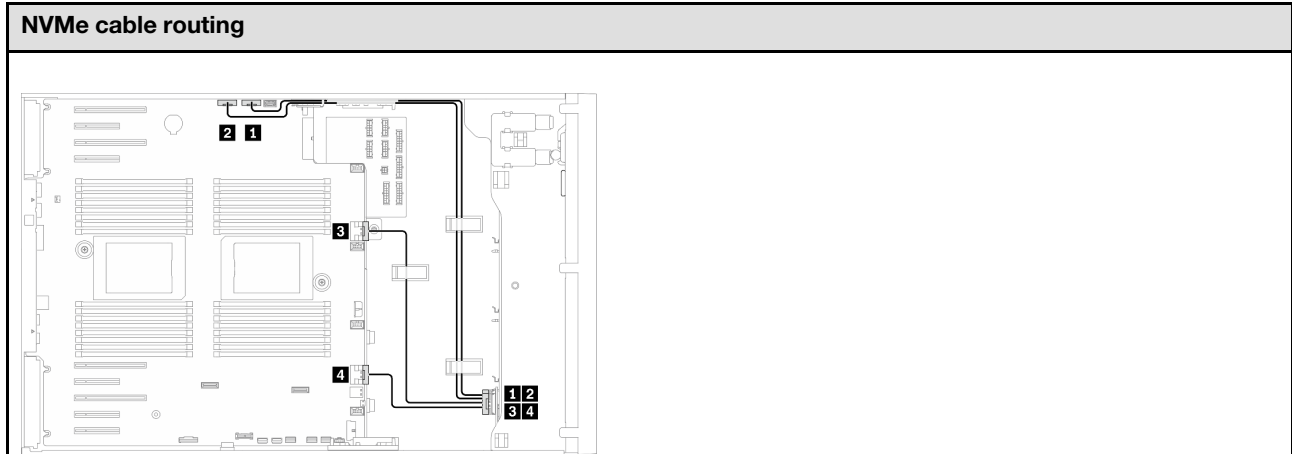


Figure 387. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

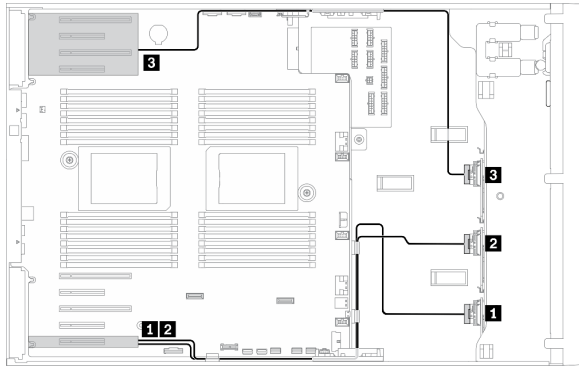


Figure 388. SAS/SATA cable routing to top PCIe zone

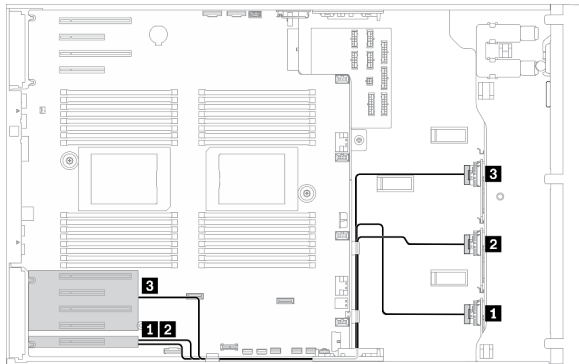


Figure 389. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

**Onboard NVMe + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA**

**NVMe cable routing**

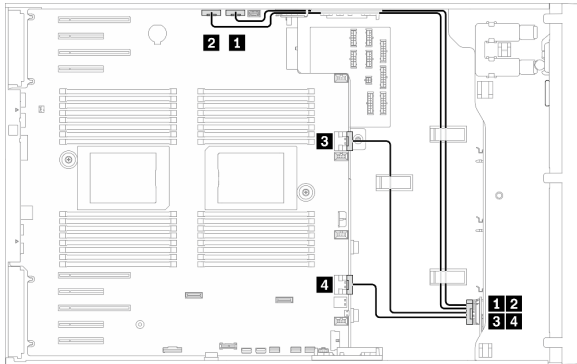


Figure 390. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

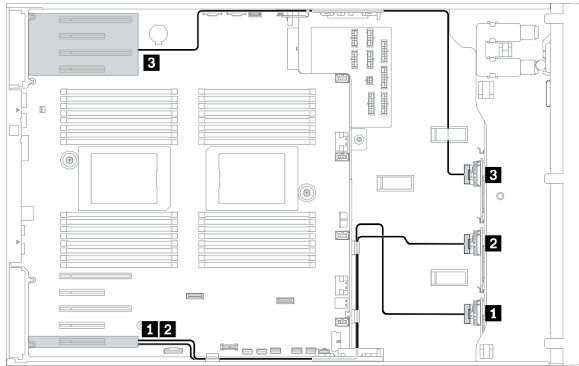


Figure 391. SAS/SATA cable routing to top PCIe zone

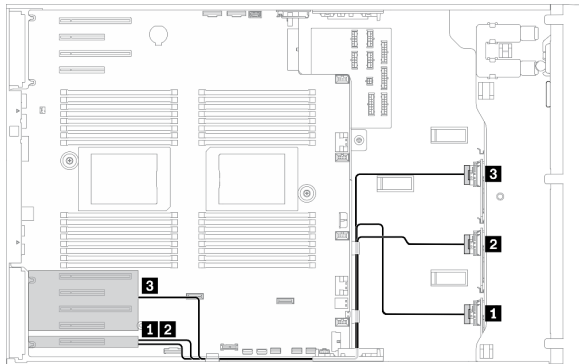


Figure 392. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 1 x 32i RAID/HBA

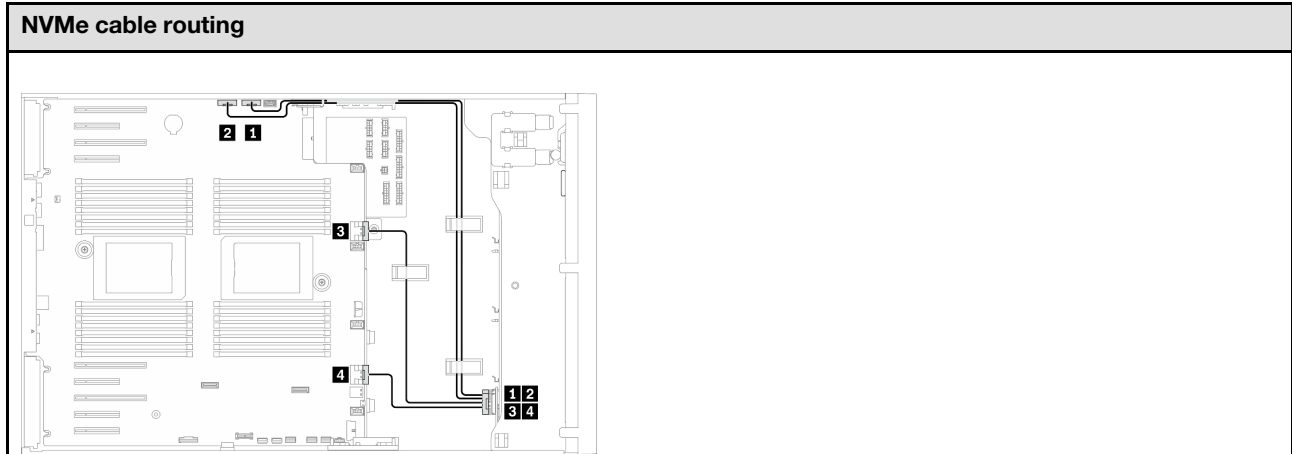


Figure 393. NVMe cable routing to system board

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	

## SAS/SATA cable routing

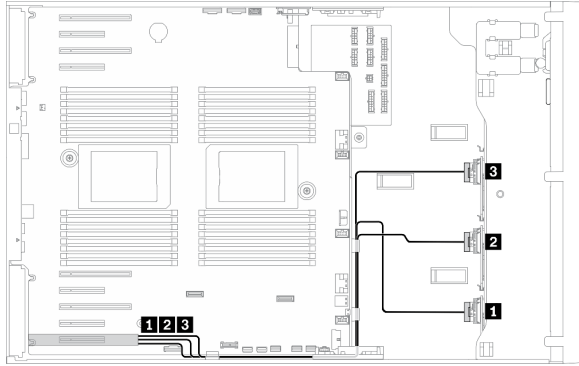


Figure 394. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>3</b> BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)

## Onboard SATA + 2 x retimers + 2 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

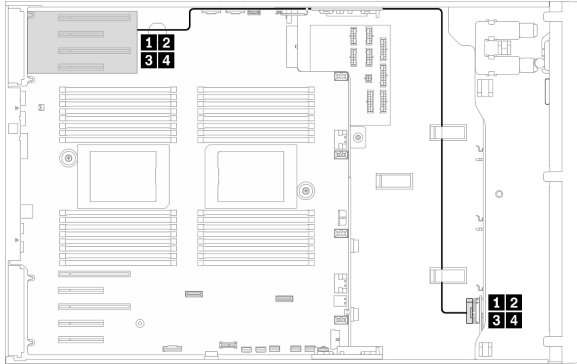


Figure 395. NVMe cable routing to top PCIe zone

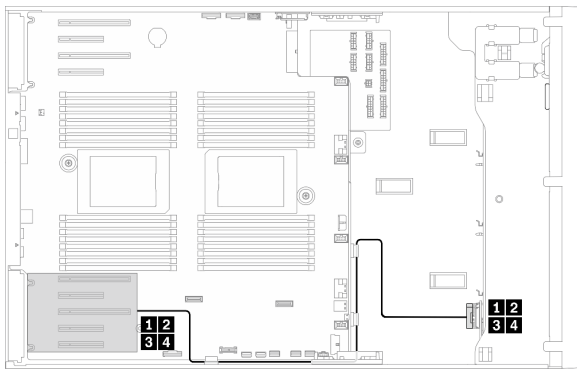


Figure 396. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

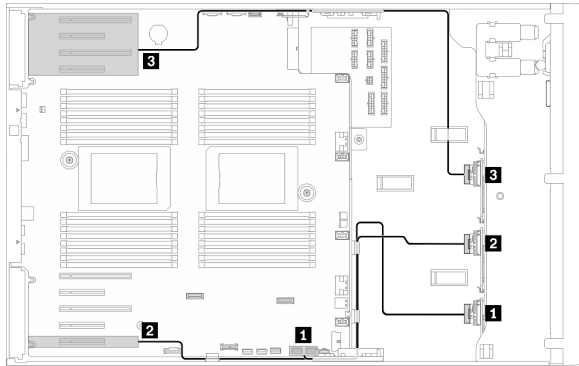


Figure 397. SAS/SATA cable routing to system board and top PCIe zone

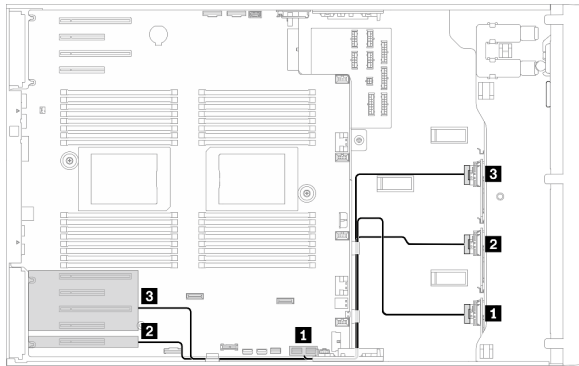


Figure 398. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard SATA + 2 x retimers + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

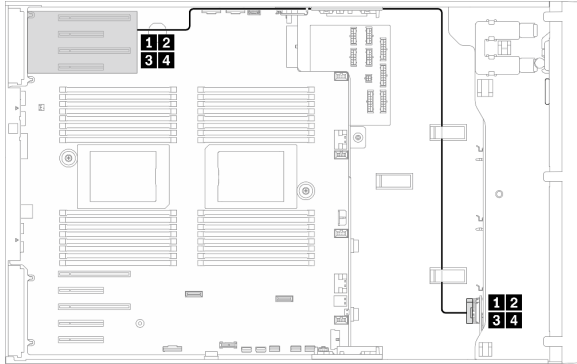


Figure 399. NVMe cable routing to top PCIe zone

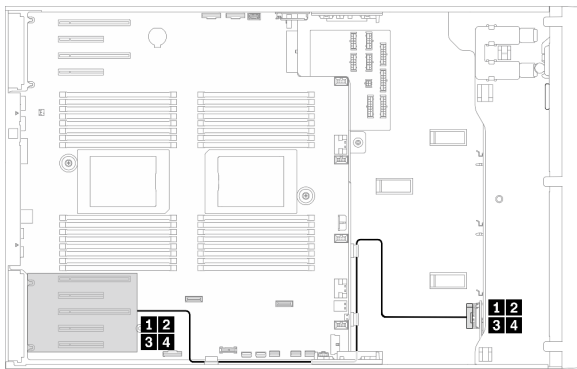


Figure 400. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

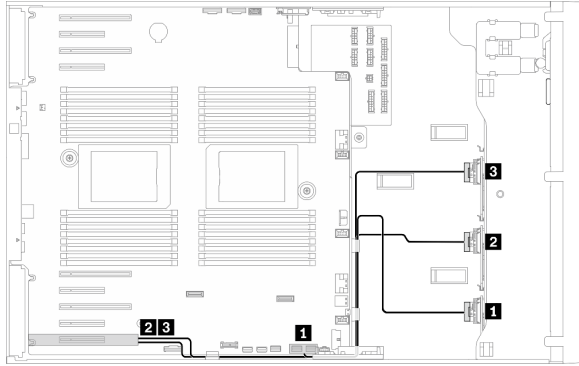


Figure 401. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard SATA + 2 x retimers + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

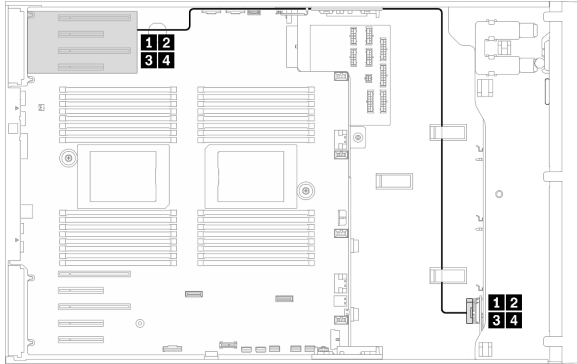


Figure 402. NVMe cable routing to top PCIe zone

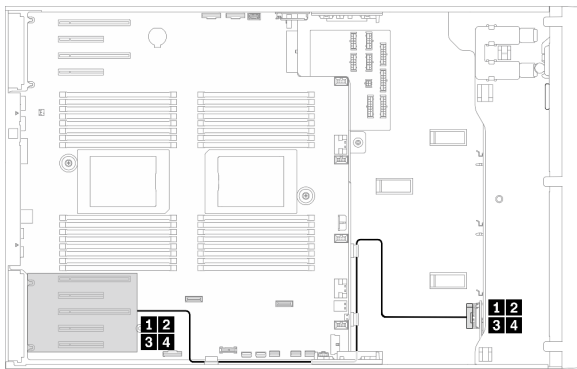


Figure 403. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

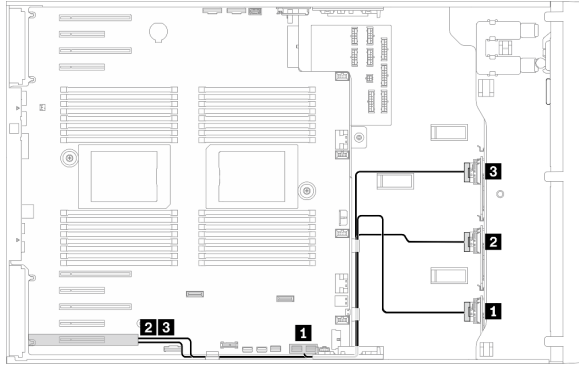


Figure 404. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## Onboard SATA + 2 x retimers + 1 x CFF RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

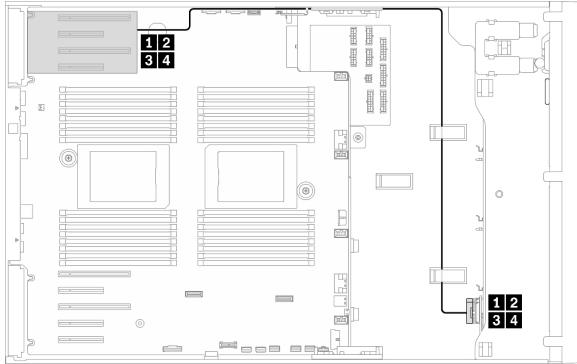


Figure 405. NVMe cable routing to top PCIe zone

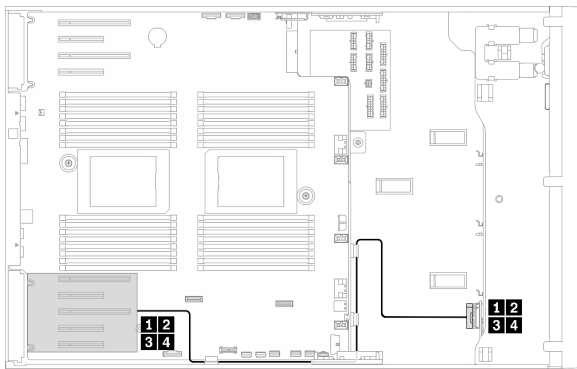


Figure 406. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

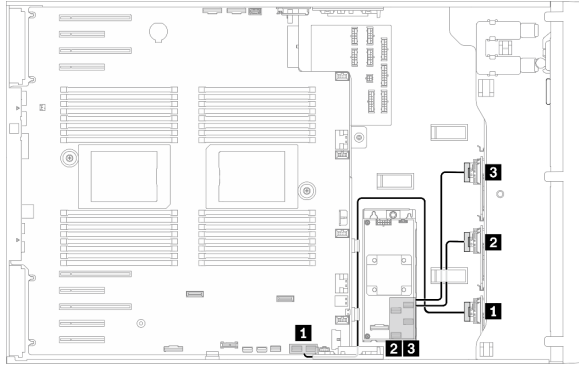


Figure 407. SAS/SATA cable routing to system board and CFF RAID/HBA adapter

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
<b>3</b> BP3: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

## 2 x retimers + 3 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

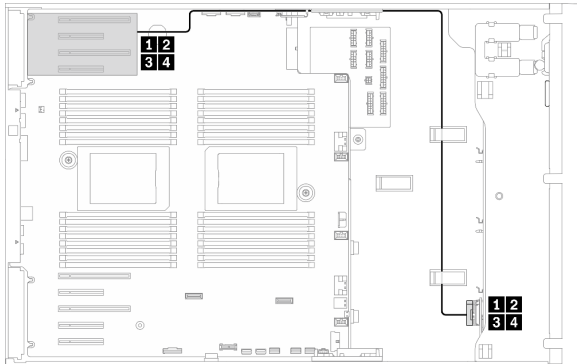


Figure 408. NVMe cable routing to top PCIe zone

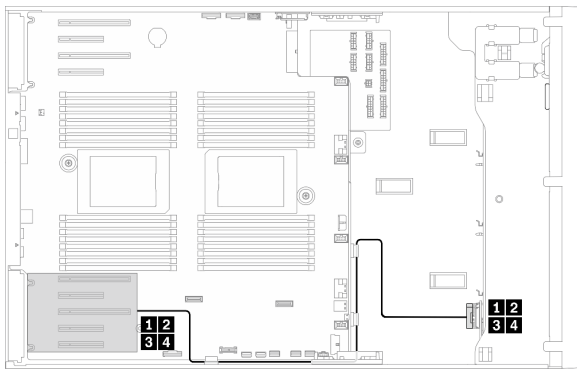


Figure 409. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

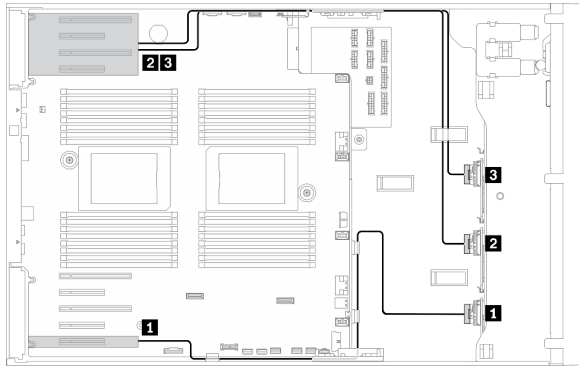


Figure 410. SAS/SATA cable routing to top PCIe zone

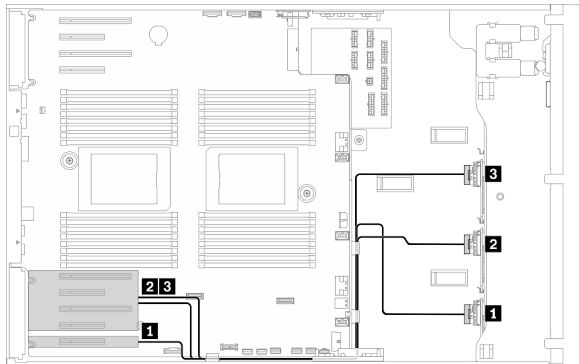


Figure 411. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

**2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA**

**NVMe cable routing**

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

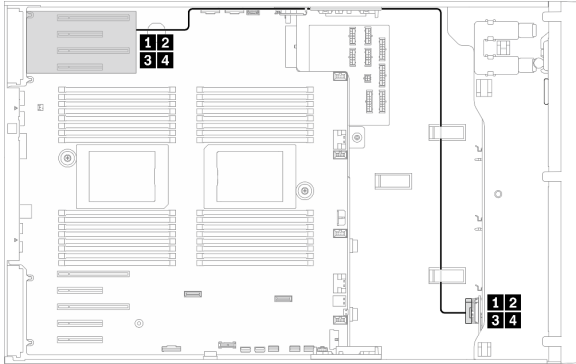


Figure 412. NVMe cable routing to top PCIe zone

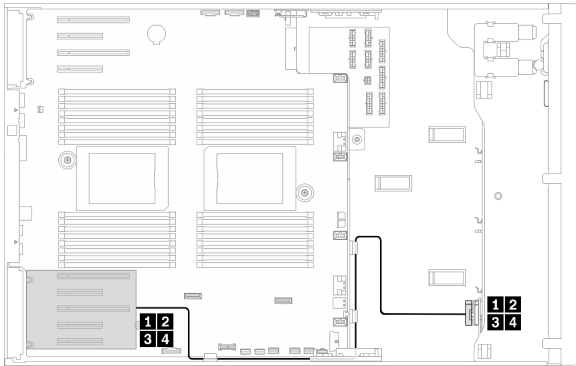


Figure 413. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

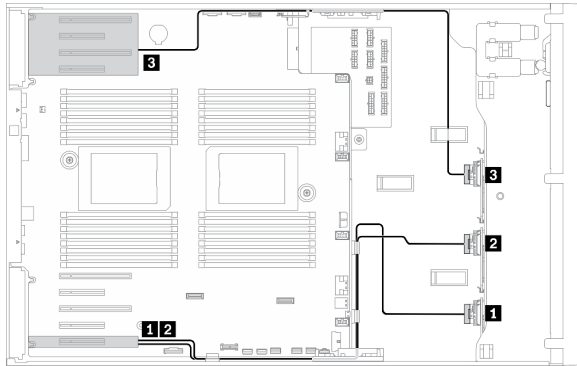


Figure 414. SAS/SATA cable routing to top PCIe zone

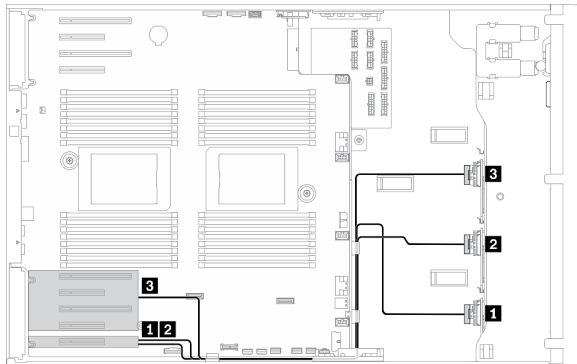


Figure 415. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

**2 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA**

**NVMe cable routing**

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

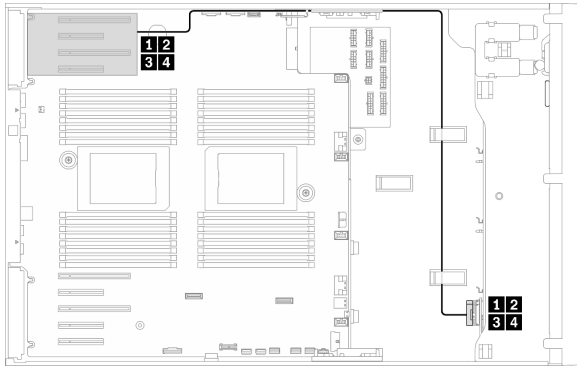


Figure 416. NVMe cable routing to top PCIe zone

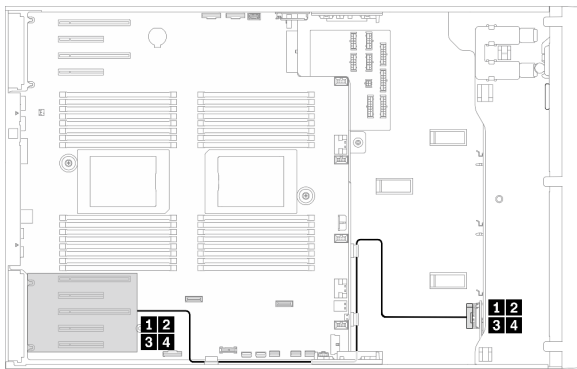


Figure 417. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

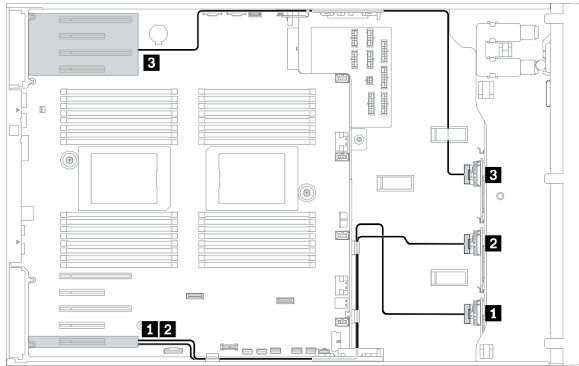


Figure 418. SAS/SATA cable routing to top PCIe zone

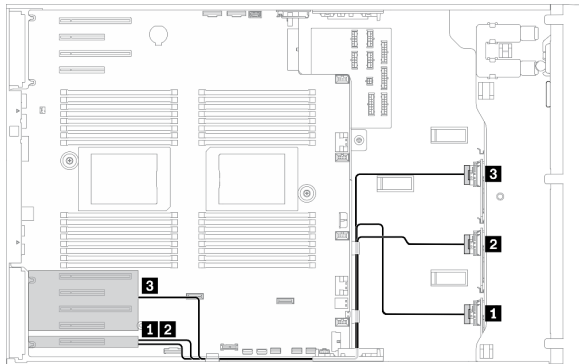


Figure 419. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	16i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 2 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

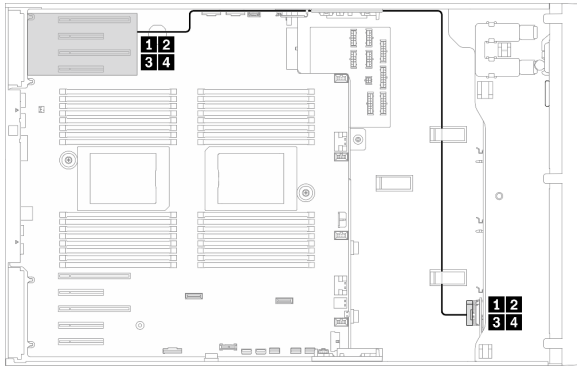


Figure 420. NVMe cable routing to top PCIe zone

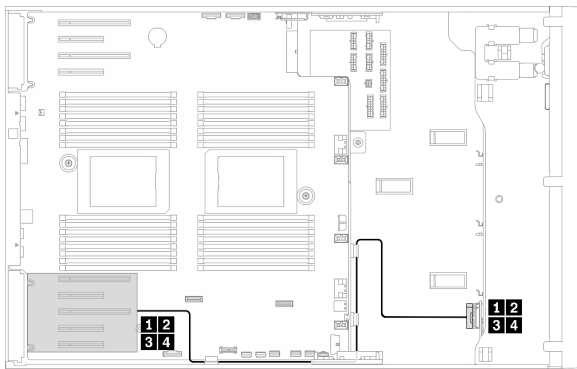


Figure 421. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

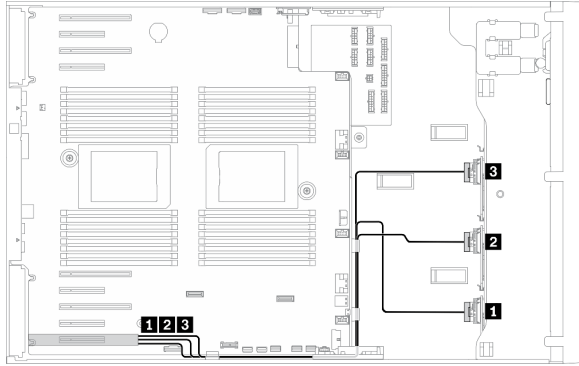


Figure 422. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>3</b> BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)

## 2 x SAS/SATA + 2 x AnyBay backplanes

This section lists the required components for server models with 2 x SAS/SATA + 2 x AnyBay 2.5-inch hot-swap backplanes.

### Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 151](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 2 x retimers + 3 x 8i RAID/HBA” on page 334](#)
- [“Onboard NVMe/SATA + 2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 336](#)
- [“Onboard NVMe/SATA + 2 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 338](#)
- [“Onboard NVMe + 2 x retimers + 4 x 8i RAID/HBA” on page 340](#)
- [“Onboard NVMe + 2 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 342](#)
- [“Onboard NVMe + 2 x retimers + 2 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 344](#)
- [“Onboard NVMe + 2 x retimers + 2 x 16i RAID/HBA” on page 346](#)
- [“Onboard NVMe + 2 x retimers + 1x 16i RAID/HBA + 1x 24i RAID/HBA” on page 348](#)
- [“Onboard NVMe + 2 x retimers + 2 x 24i RAID/HBA” on page 350](#)
- [“Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA” on page 352](#)
- [“Onboard NVMe/SATA + 3 x retimers + 3 x 8i RAID/HBA” on page 354](#)
- [“Onboard NVMe/SATA + 3 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 356](#)
- [“Onboard NVMe/SATA + 3 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 358](#)
- [“Onboard NVMe + 3 x retimers + 4 x 8i RAID/HBA” on page 360](#)
- [“Onboard NVMe + 3 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 362](#)
- [“Onboard NVMe + 3 x retimers + 2 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 364](#)
- [“Onboard NVMe + 3 x retimers + 2 x 16i RAID/HBA” on page 366](#)
- [“Onboard NVMe + 3 x retimers + 1 x 16i RAID/HBA + 1 x 24i RAID/HBA” on page 368](#)
- [“Onboard NVMe + 3 x retimers + 2 x 24i RAID/HBA” on page 370](#)
- [“Onboard NVMe + 3 x retimers + 1 x 32i RAID/HBA” on page 372](#)
- [“Onboard SATA + 4 x retimers + 3 x 8i RAID/HBA” on page 374](#)
- [“Onboard SATA + 4 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 376](#)
- [“Onboard SATA + 4 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 378](#)
- [“4 x retimers + 4 x 8i RAID/HBA” on page 380](#)
- [“4 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 382](#)
- [“4 x retimers + 2 x 8i RAID/HBA + 1 x 24i RAID/HBA” on page 384](#)
- [“4 x retimers + 2 x 16i RAID/HBA” on page 386](#)
- [“4 x retimers + 1 x 16i RAID/HBA + 1 x 24i RAID/HBA” on page 388](#)
- [“4 x retimers + 2 x 24i RAID/HBA” on page 390](#)

- “4 x retimers + 1 x 32i RAID/HBA” on page 392

## Onboard NVMe/SATA + 2 x retimers + 3 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

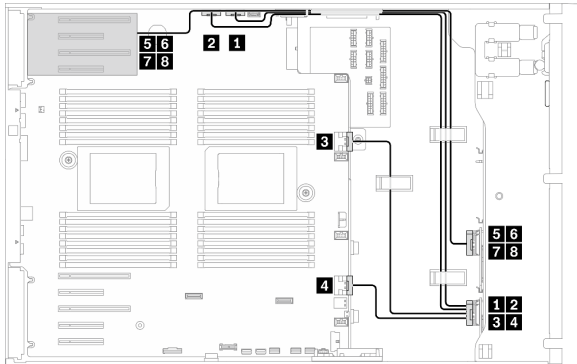


Figure 423. NVMe cable routing to system board and top PCIe zone

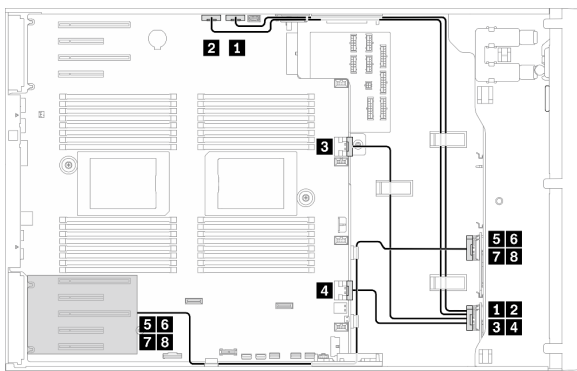


Figure 424. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

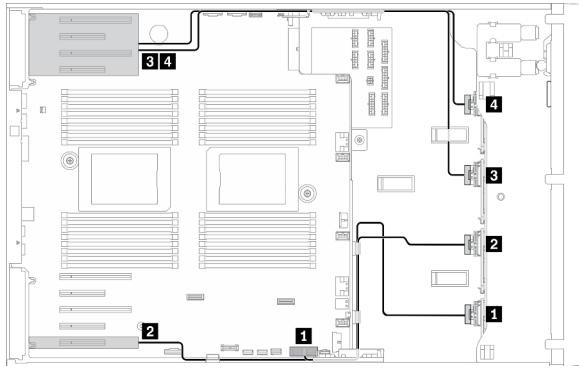


Figure 425. SAS/SATA cable routing to system board and top PCIe zone

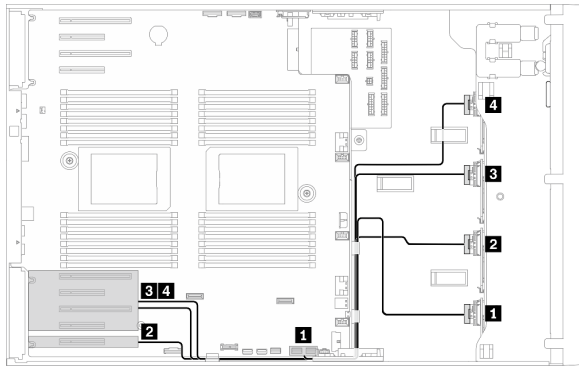


Figure 426. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe/SATA + 2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

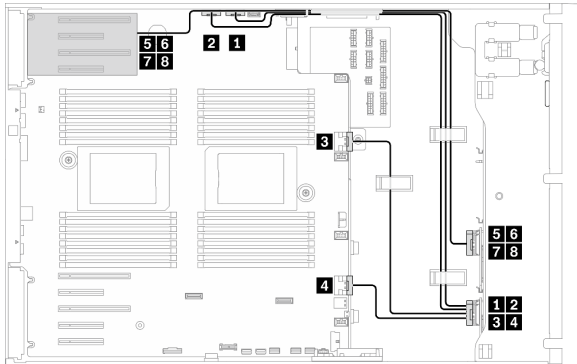


Figure 427. NVMe cable routing to system board and top PCIe zone

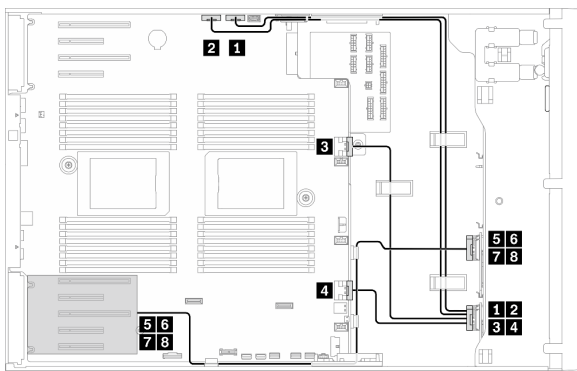


Figure 428. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

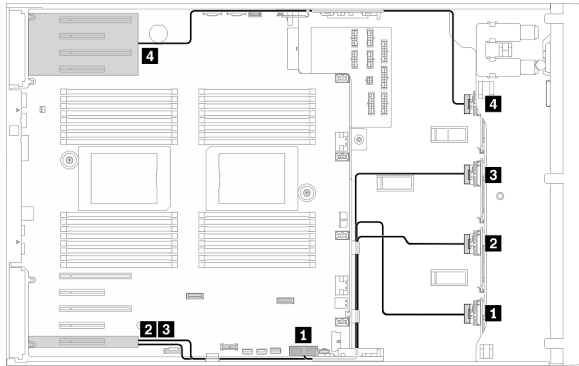


Figure 429. SAS/SATA cable routing to system board and top PCIe zone

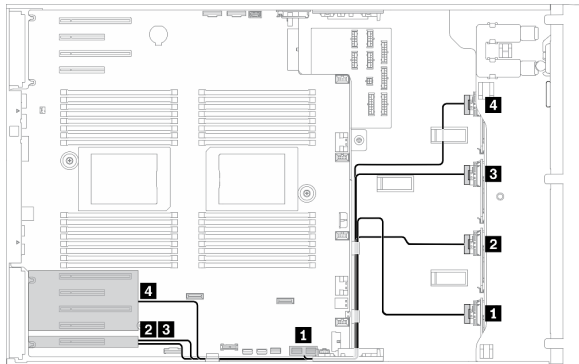


Figure 430. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe/SATA + 2 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

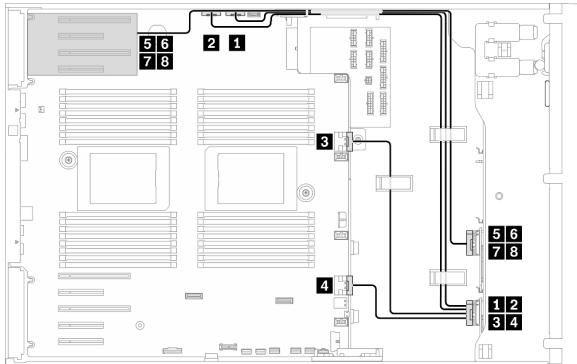


Figure 431. NVMe cable routing to system board and top PCIe zone

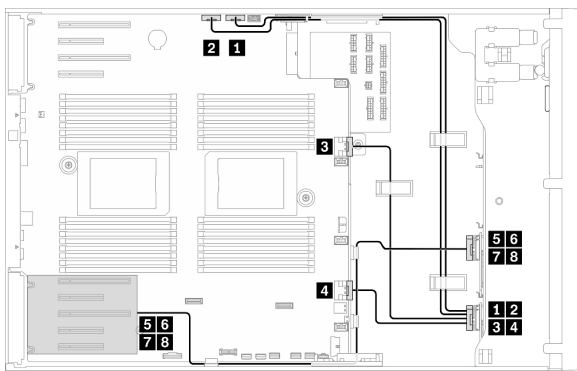


Figure 432. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

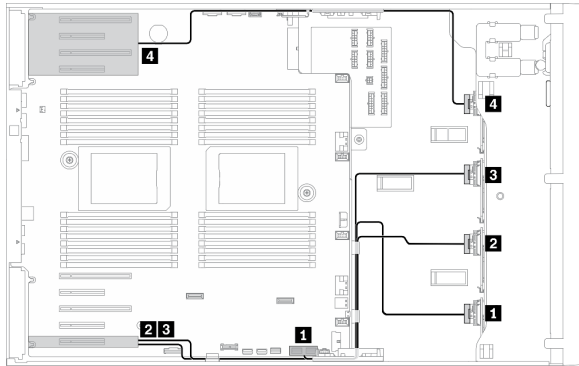


Figure 433. SAS/SATA cable routing to system board and top PCIe zone

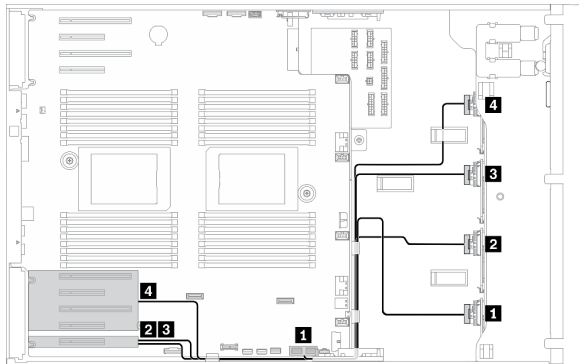


Figure 434. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 4 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

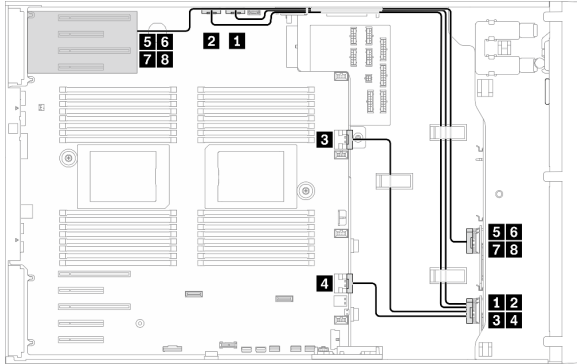


Figure 435. NVMe cable routing to system board and top PCIe zone

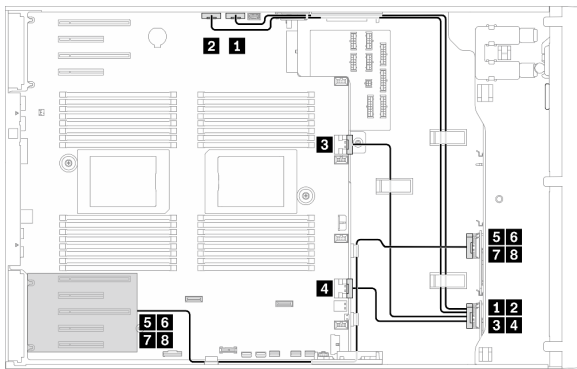


Figure 436. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

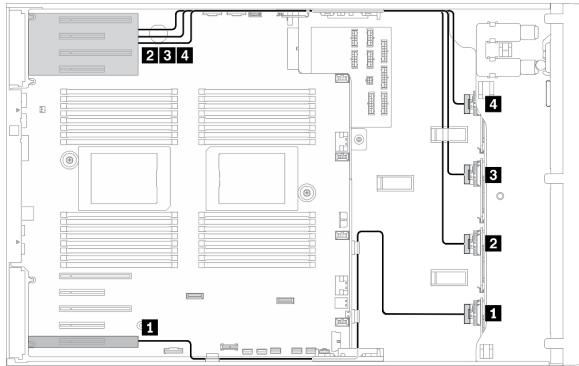


Figure 437. SAS/SATA cable routing to top PCIe zone

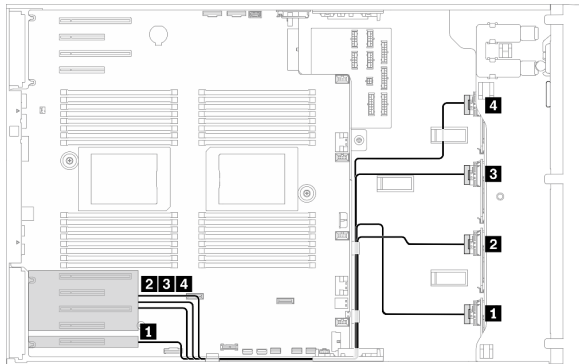


Figure 438. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

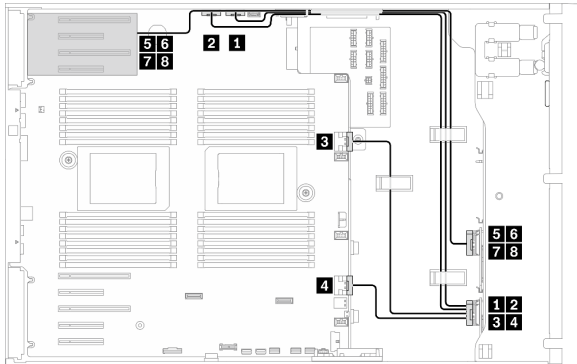


Figure 439. NVMe cable routing to system board and top PCIe zone

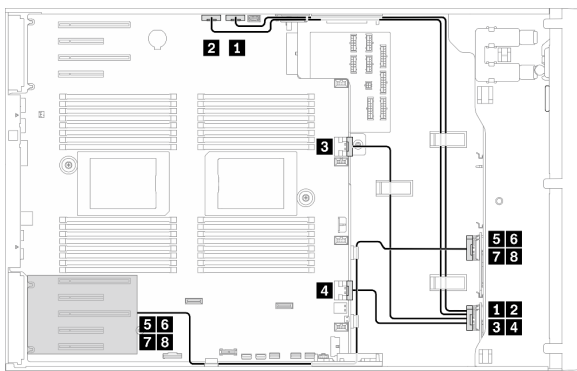


Figure 440. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

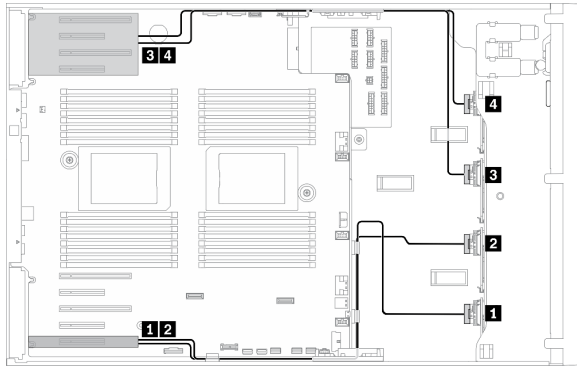


Figure 441. SAS/SATA cable routing to top PCIe zone

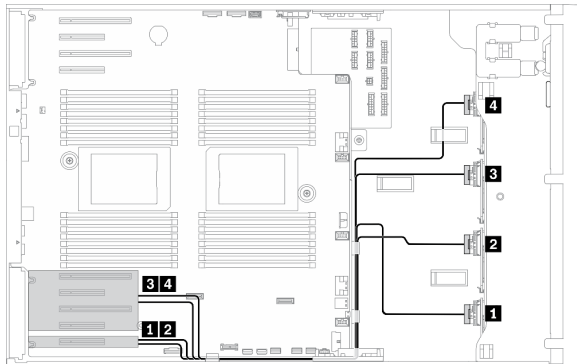


Figure 442. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 2 x 8i RAID/HBA + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

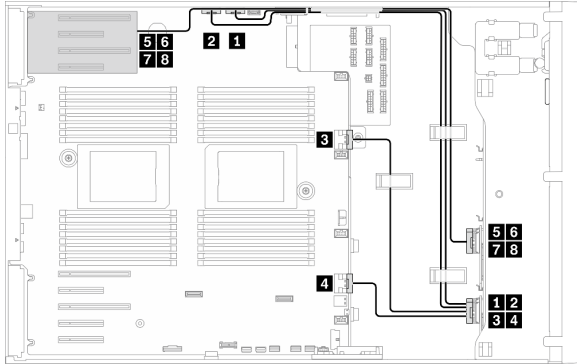


Figure 443. NVMe cable routing to system board and top PCIe zone

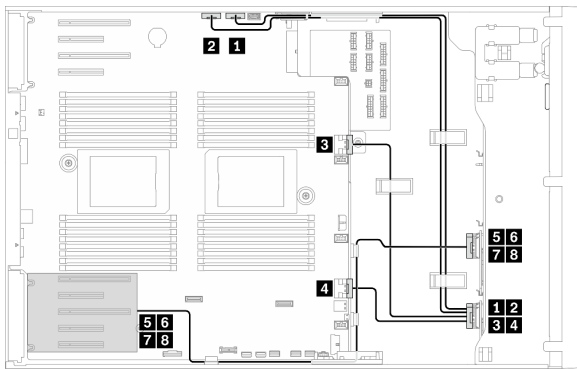


Figure 444. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

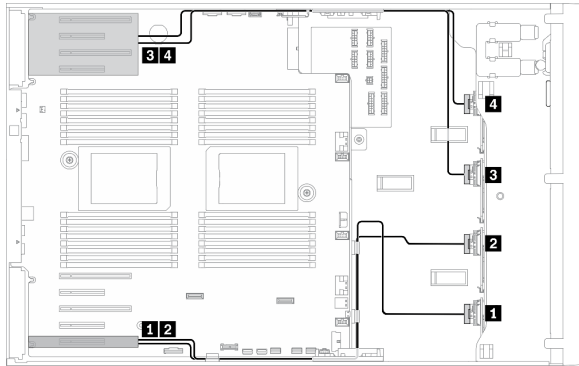


Figure 445. SAS/SATA cable routing to top PCIe zone

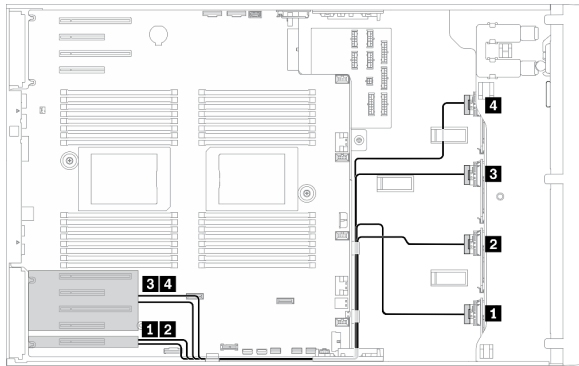


Figure 446. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 2 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

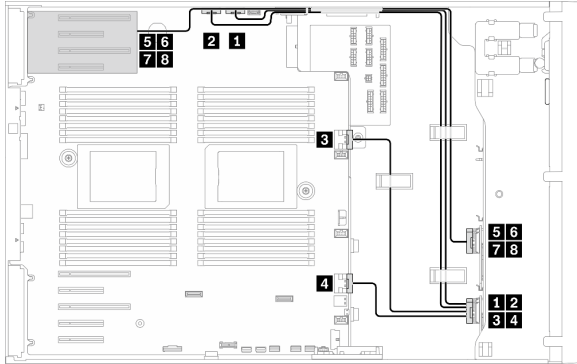


Figure 447. NVMe cable routing to system board and top PCIe zone

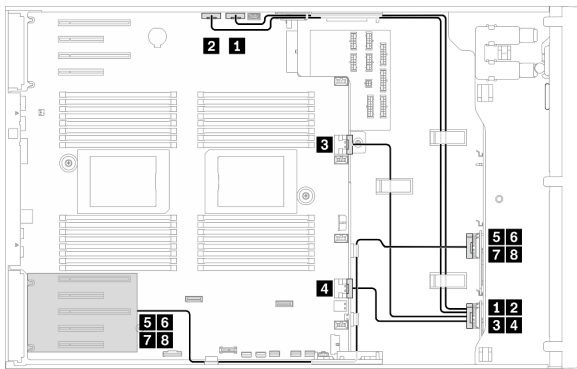


Figure 448. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

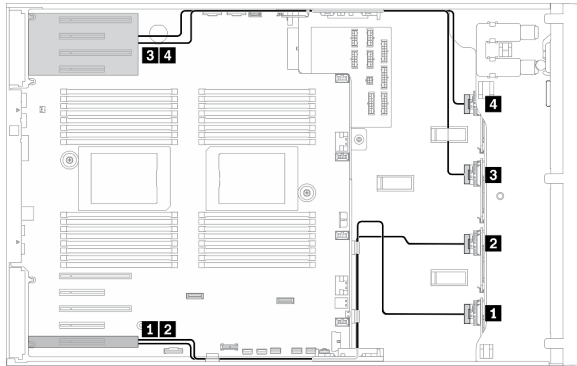


Figure 449. SAS/SATA cable routing to top PCIe zone

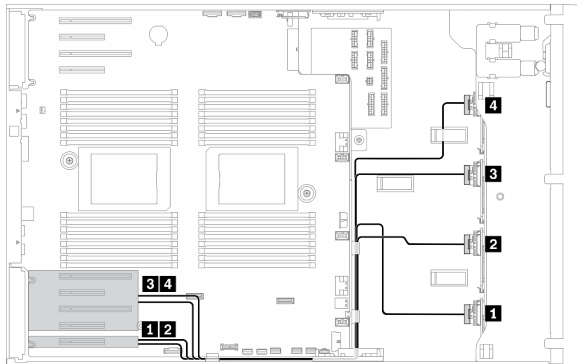


Figure 450. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 1x 16i RAID/HBA + 1x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

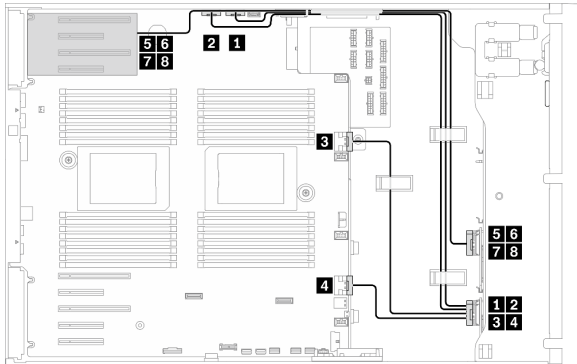


Figure 451. NVMe cable routing to system board and top PCIe zone

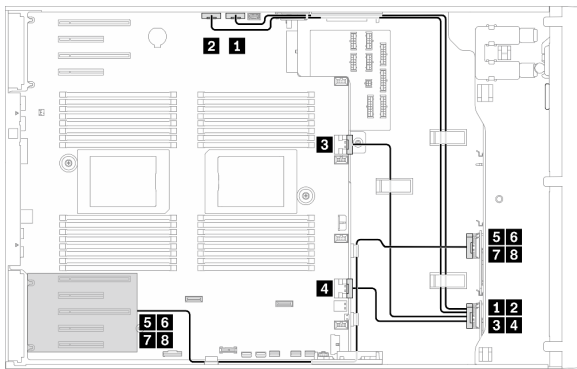


Figure 452. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

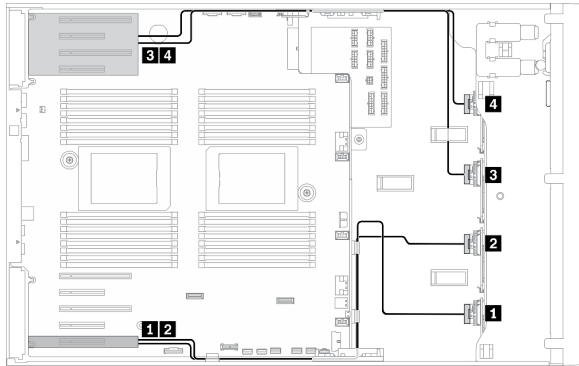


Figure 453. SAS/SATA cable routing to top PCIe zone

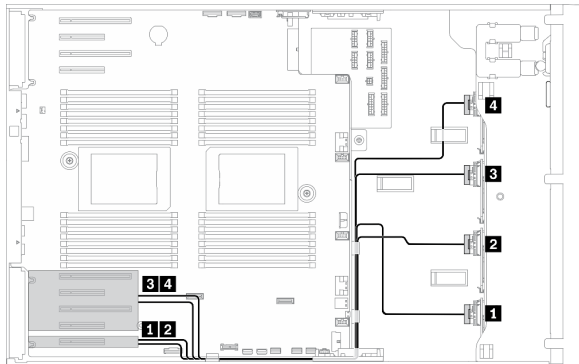


Figure 454. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 2 x retimers + 2 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

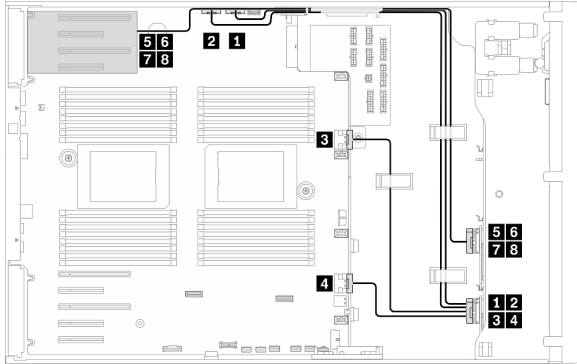


Figure 455. NVMe cable routing to system board and top PCIe zone

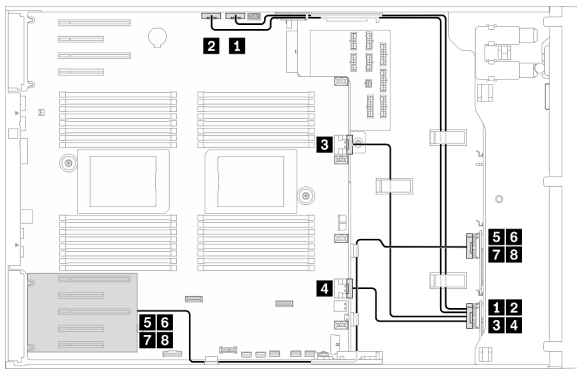


Figure 456. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

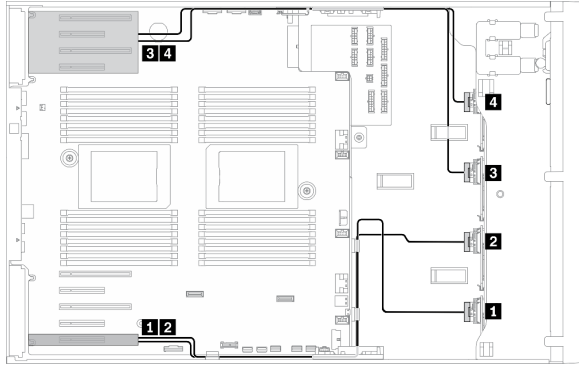


Figure 457. SAS/SATA cable routing to top PCIe zone

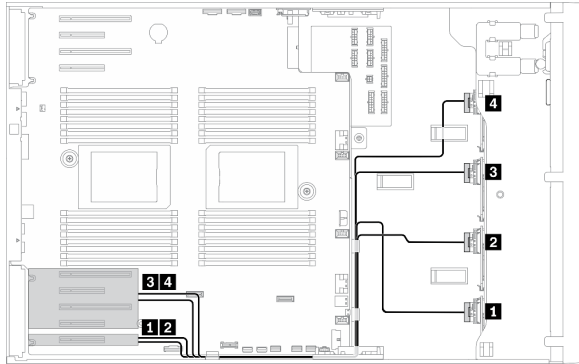


Figure 458. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)
<b>4</b> BP4: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

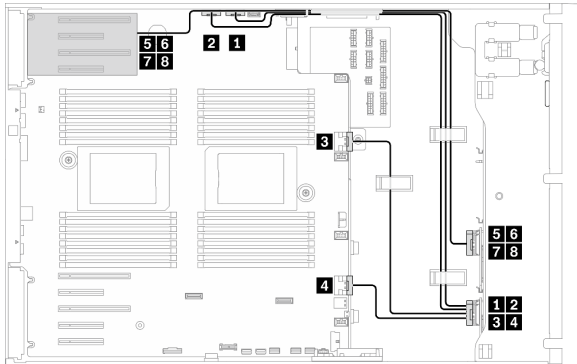


Figure 459. NVMe cable routing to system board and top PCIe zone

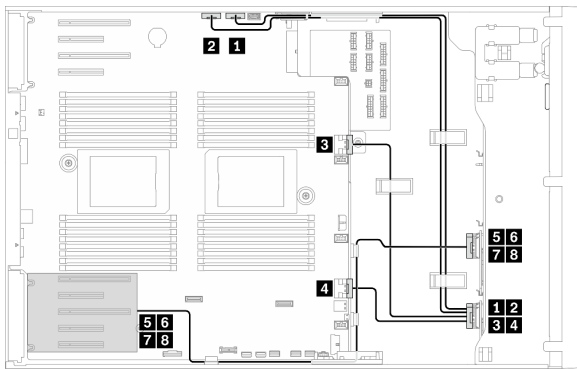


Figure 460. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
<b>2</b> BP1: NVMe 2-3	PCIe 2 (onboard)	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

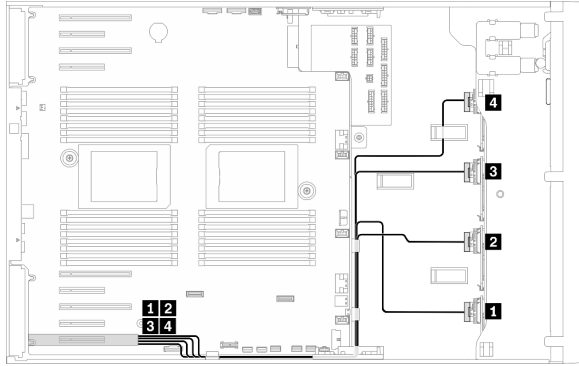


Figure 461. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>3</b> BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>4</b> BP4: SAS/SATA	32i G4: C3	SlimSAS x8 to SlimSAS x8 (880 mm)

## Onboard NVMe/SATA + 3 x retimers + 3 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

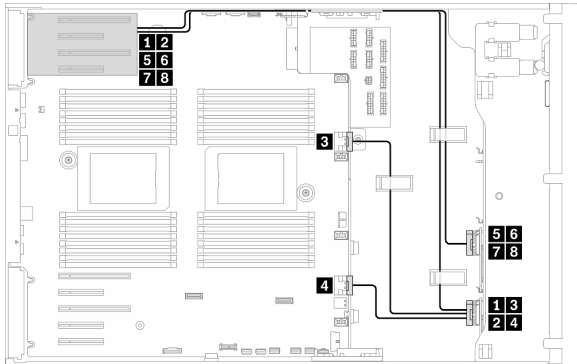


Figure 462. NVMe cable routing to system board and top PCIe zone

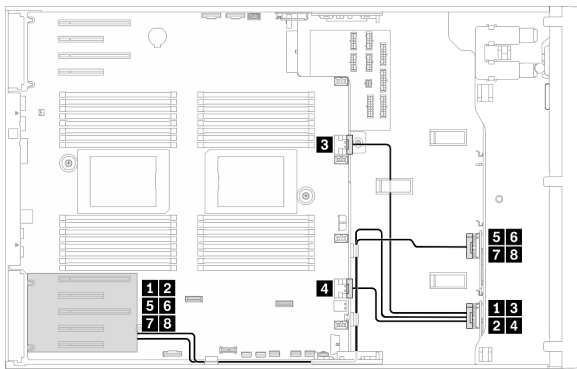


Figure 463. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

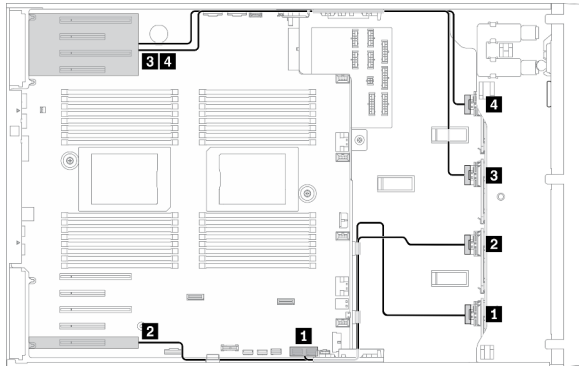


Figure 464. SAS/SATA cable routing to system board and top PCIe zone

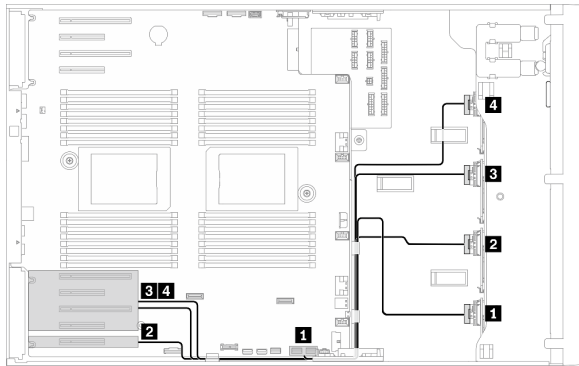


Figure 465. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe/SATA + 3 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

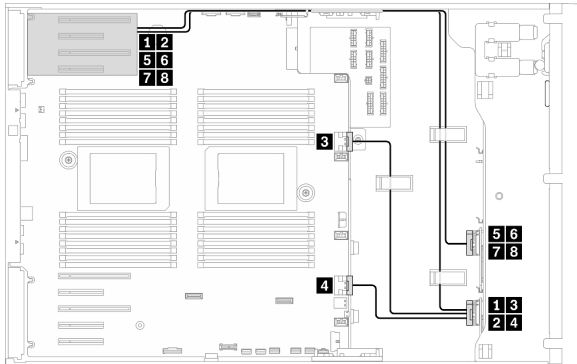


Figure 466. NVMe cable routing to system board and top PCIe zone

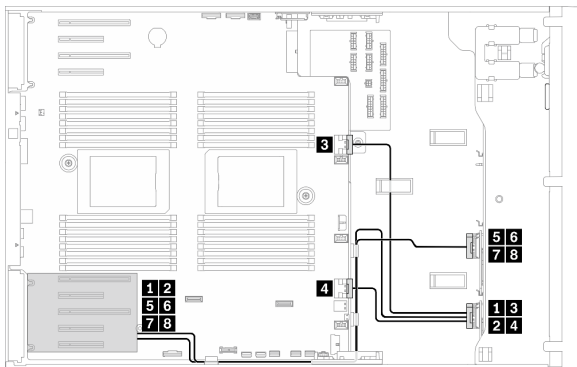


Figure 467. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

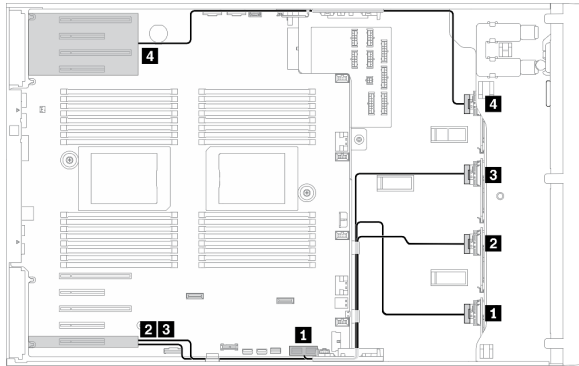


Figure 468. SAS/SATA cable routing to system board and top PCIe zone

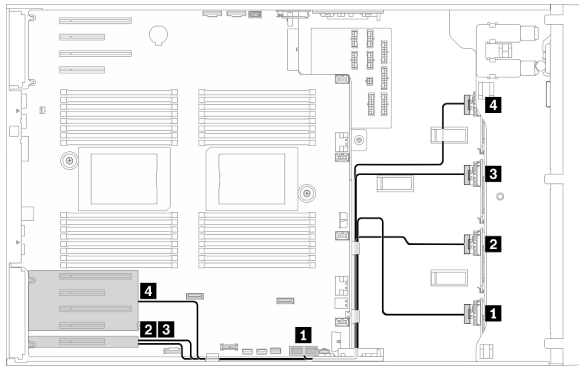


Figure 469. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe/SATA + 3 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

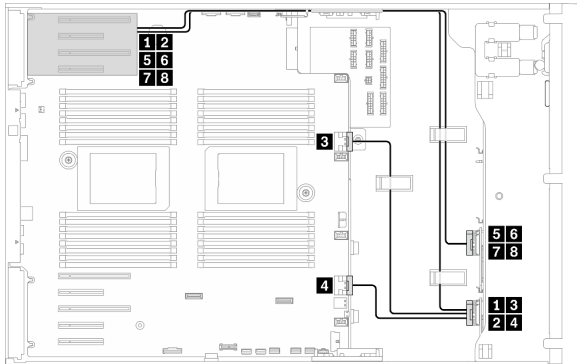


Figure 470. NVMe cable routing to system board and top PCIe zone

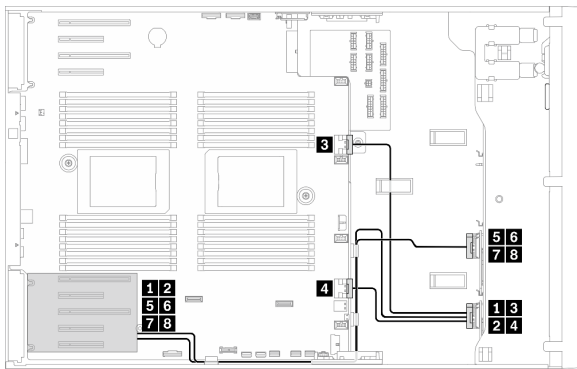


Figure 471. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

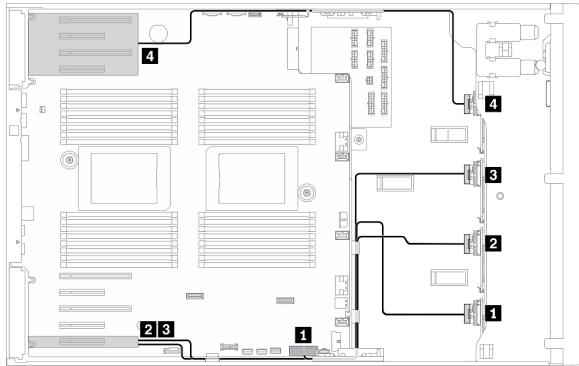


Figure 472. SAS/SATA cable routing to system board and top PCIe zone

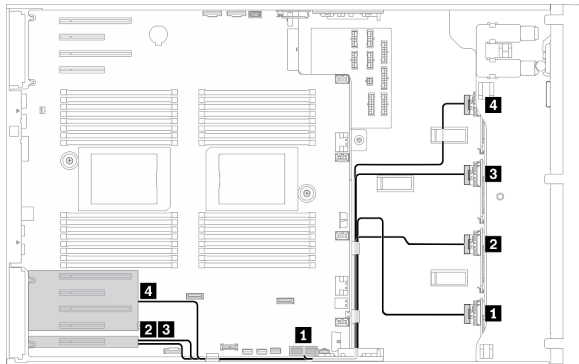


Figure 473. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 3 x retimers + 4 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

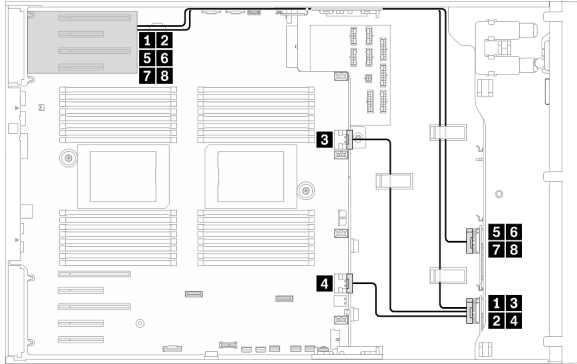


Figure 474. NVMe cable routing to system board and top PCIe zone

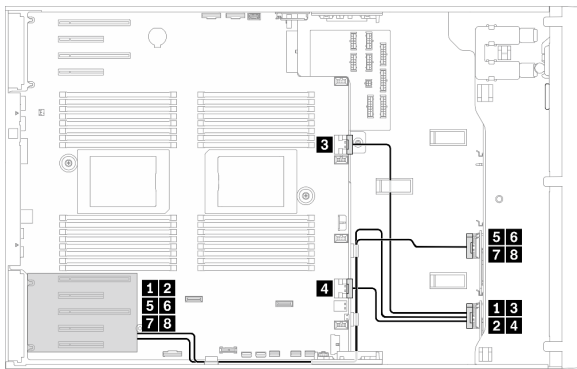


Figure 475. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

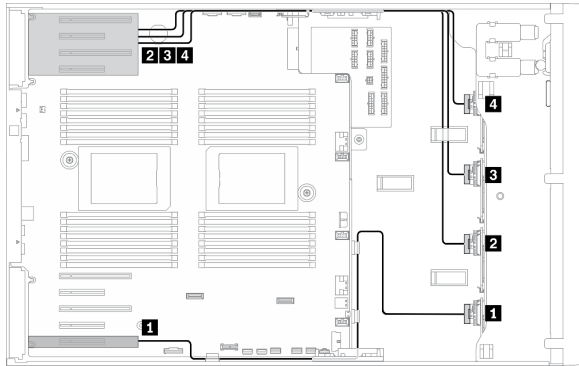


Figure 476. SAS/SATA cable routing to top PCIe zone

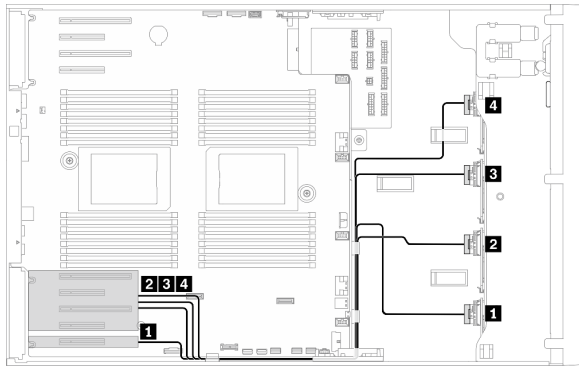


Figure 477. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 3 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

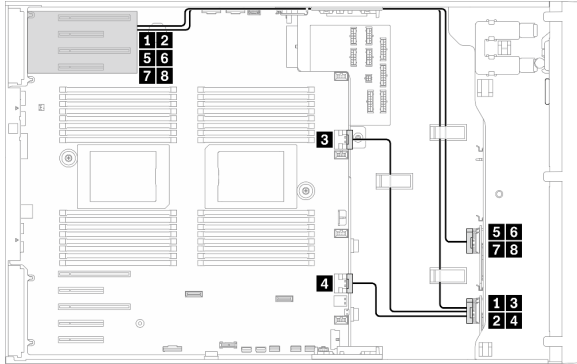


Figure 478. NVMe cable routing to system board and top PCIe zone

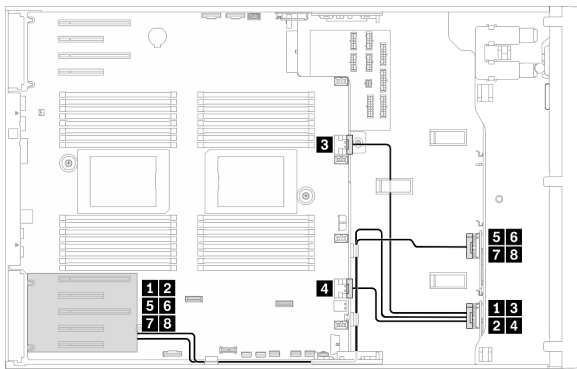


Figure 479. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

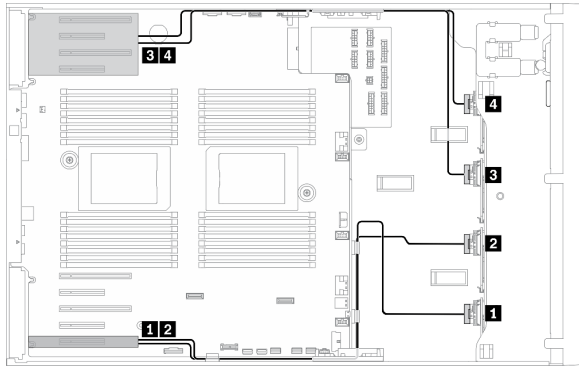


Figure 480. SAS/SATA cable routing to top PCIe zone

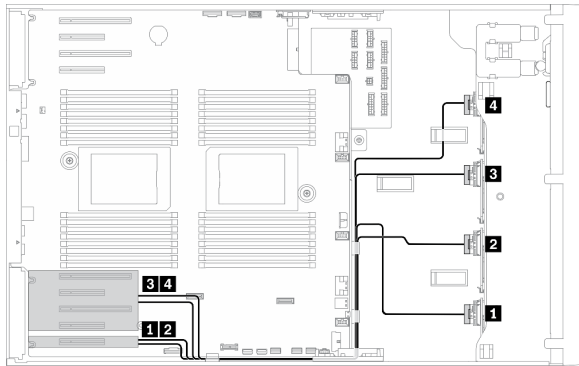


Figure 481. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 3 x retimers + 2 x 8i RAID/HBA + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

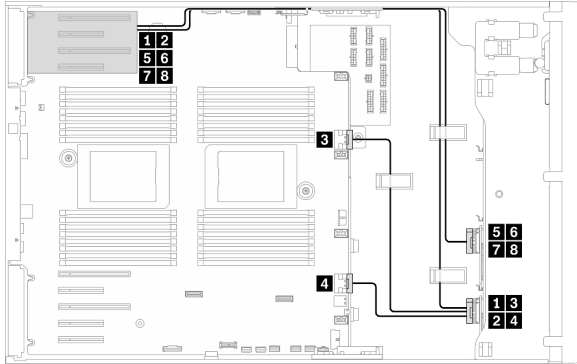


Figure 482. NVMe cable routing to system board and top PCIe zone

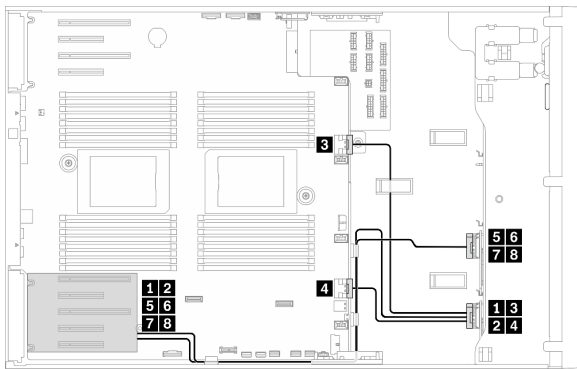


Figure 483. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

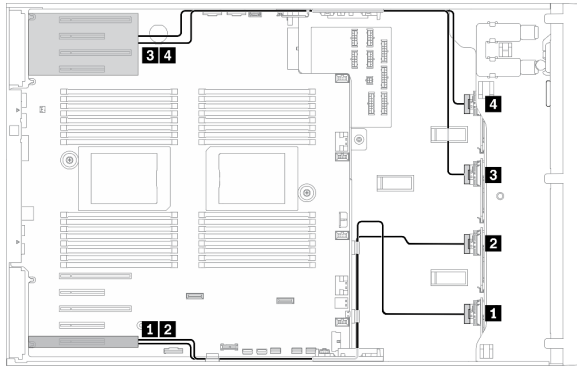


Figure 484. SAS/SATA cable routing to top PCIe zone

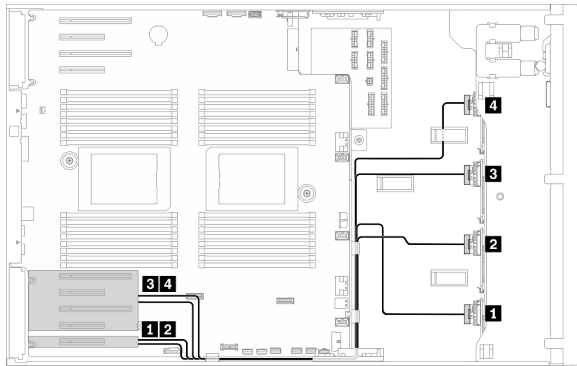


Figure 485. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 3 x retimers + 2 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

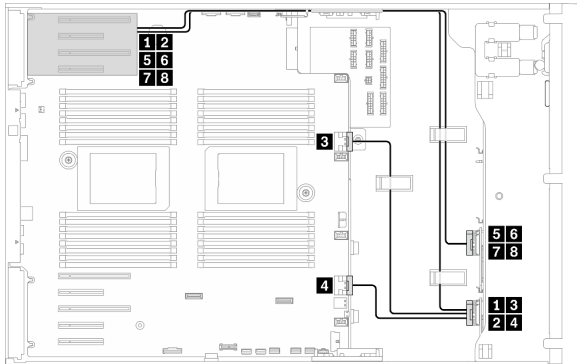


Figure 486. NVMe cable routing to system board and top PCIe zone

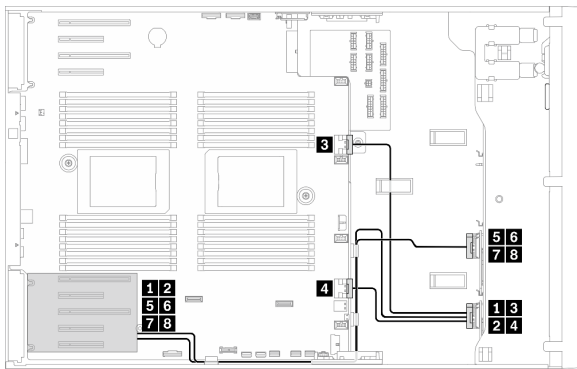


Figure 487. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

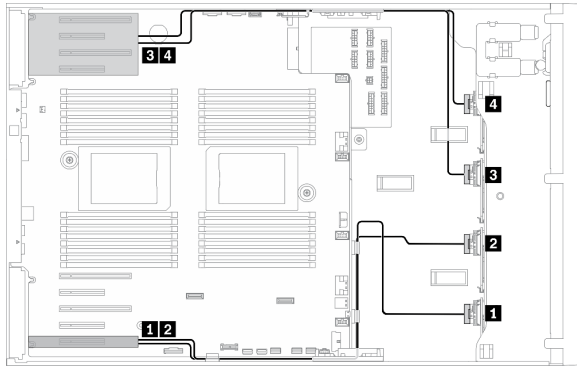


Figure 488. SAS/SATA cable routing to top PCIe zone

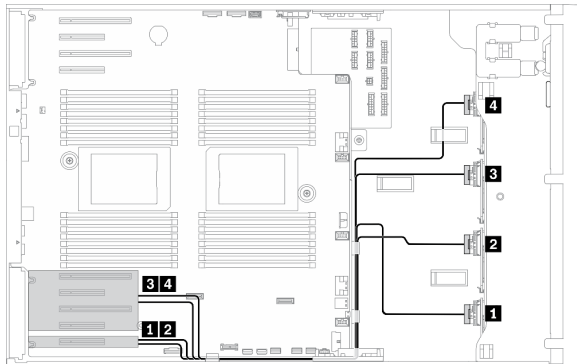


Figure 489. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 3 x retimers + 1 x 16i RAID/HBA + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

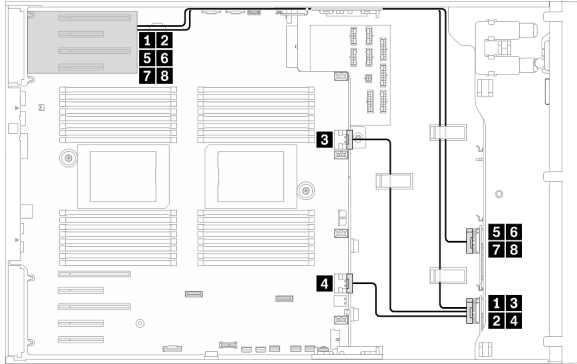


Figure 490. NVMe cable routing to system board and top PCIe zone

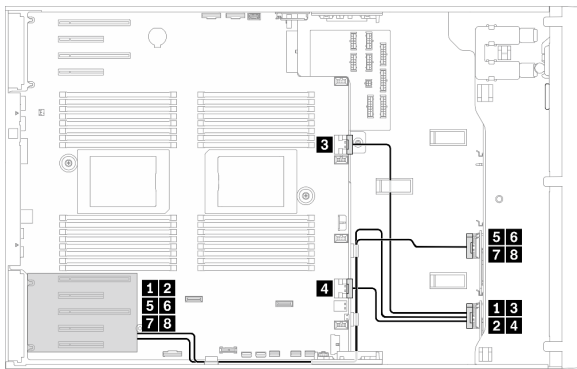


Figure 491. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

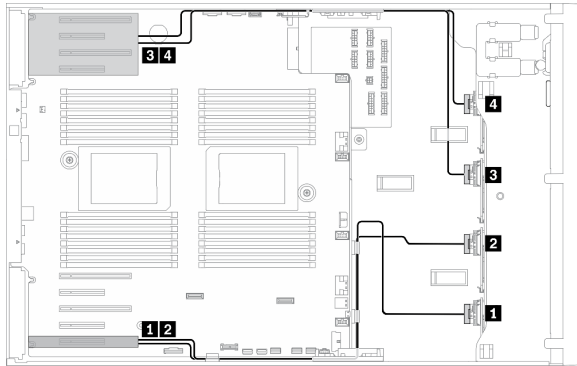


Figure 492. SAS/SATA cable routing to top PCIe zone

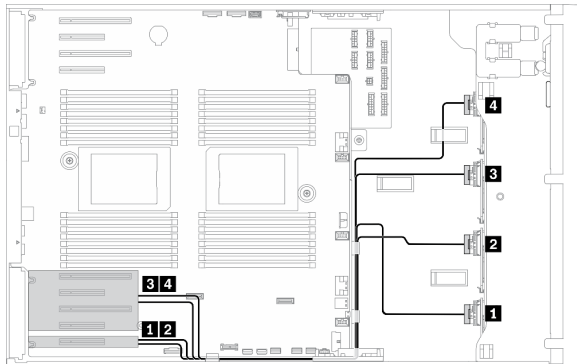


Figure 493. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard NVMe + 3 x retimers + 2 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

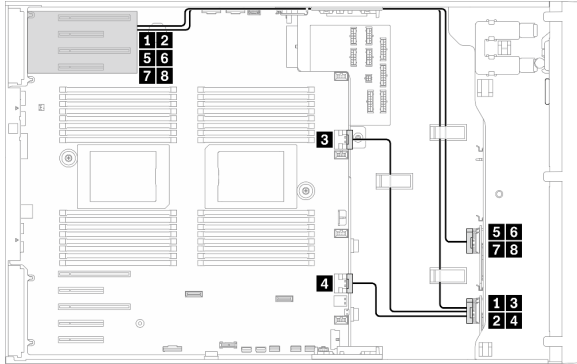


Figure 494. NVMe cable routing to system board and top PCIe zone

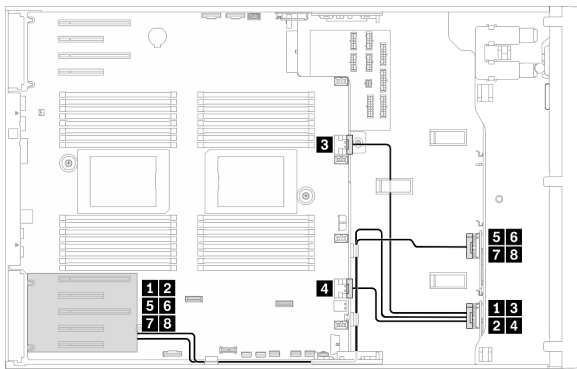


Figure 495. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

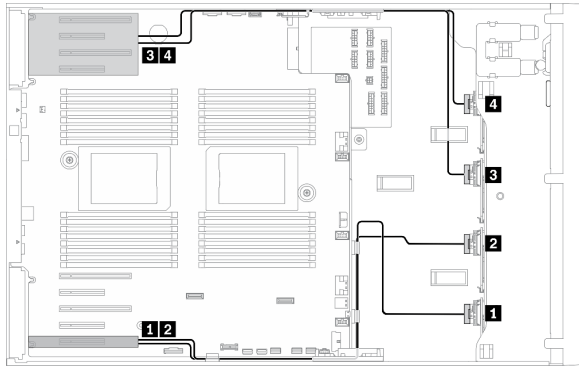


Figure 496. SAS/SATA cable routing to top PCIe zone

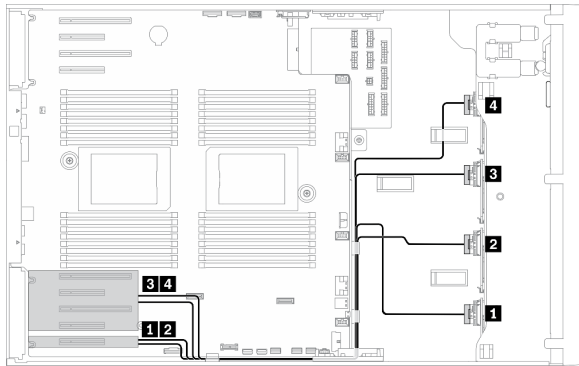


Figure 497. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)
<b>4</b> BP4: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## Onboard NVMe + 3 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

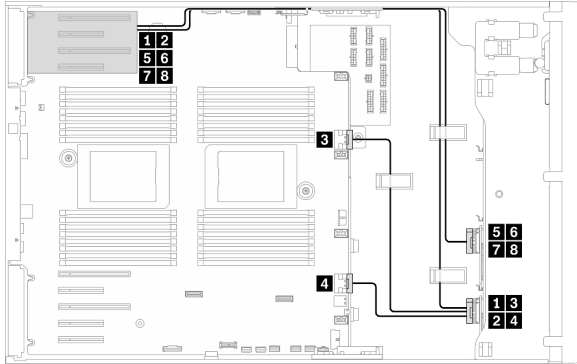


Figure 498. NVMe cable routing to system board and top PCIe zone

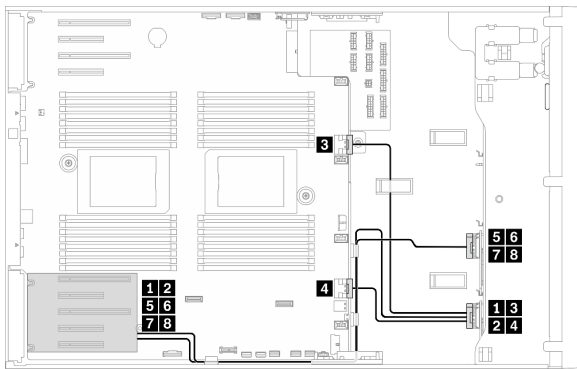


Figure 499. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
<b>4</b> BP1: NVMe 6-7	PCIe 4 (onboard)	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

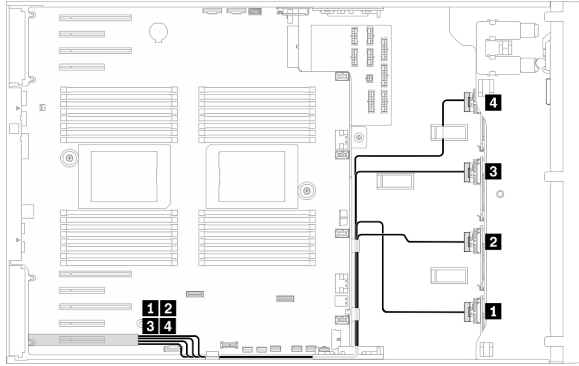


Figure 500. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>3</b> BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>4</b> BP4: SAS/SATA	32i G4: C3	SlimSAS x8 to SlimSAS x8 (880 mm)

## Onboard SATA + 4 x retimers + 3 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

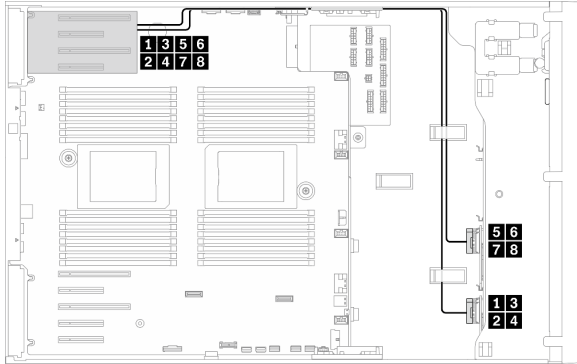


Figure 501. NVMe cable routing to top PCIe zone

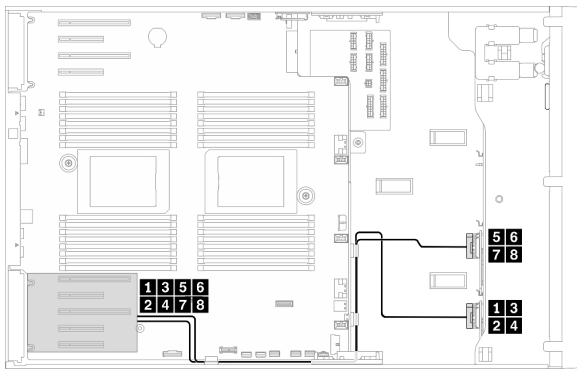


Figure 502. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

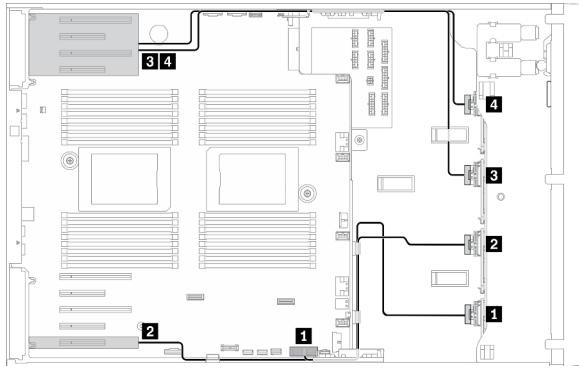


Figure 503. SAS/SATA cable routing to system board and top PCIe zone

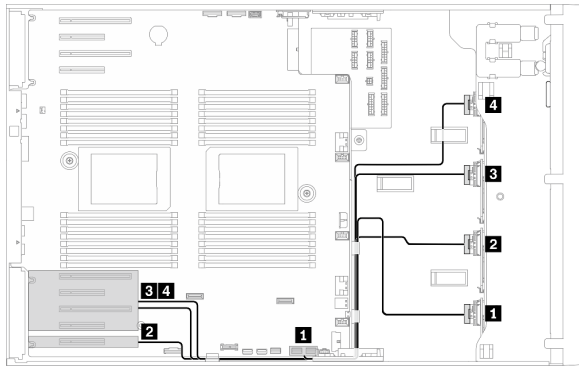


Figure 504. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard SATA + 4 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

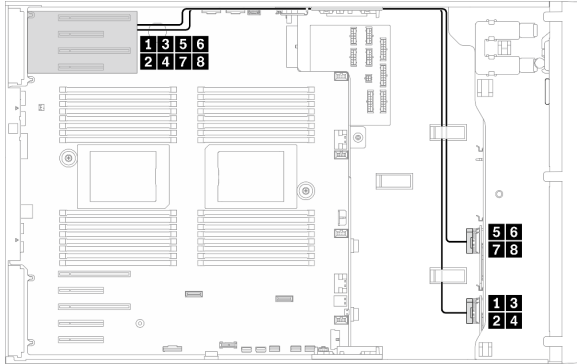


Figure 505. NVMe cable routing to top PCIe zone

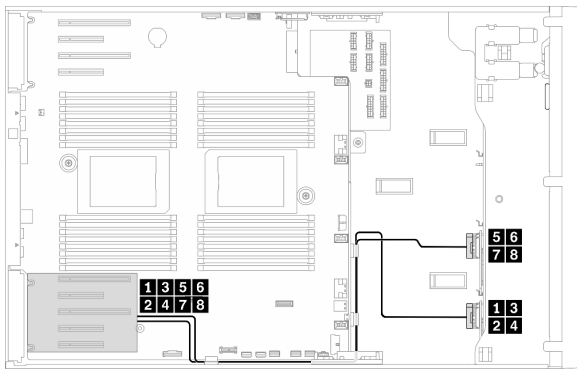


Figure 506. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

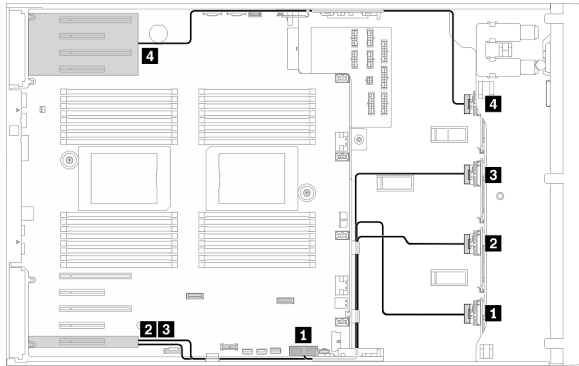


Figure 507. SAS/SATA cable routing to system board and top PCIe zone

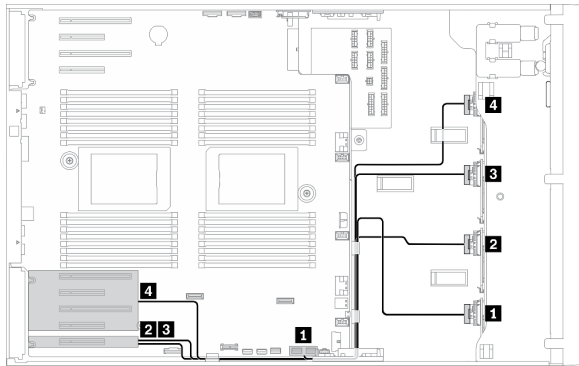


Figure 508. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## Onboard SATA + 4 x retimers + 1 x 8i RAID/HBA + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

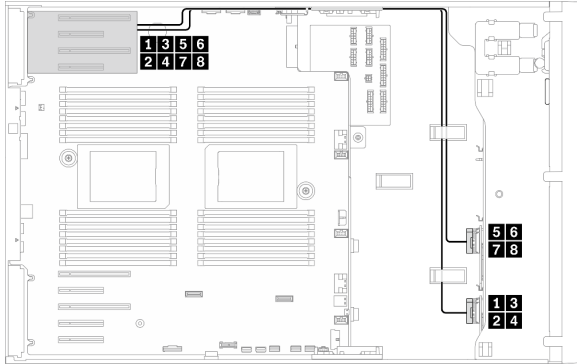


Figure 509. NVMe cable routing to top PCIe zone

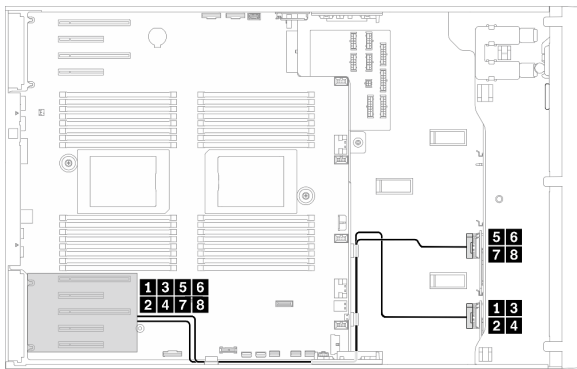


Figure 510. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

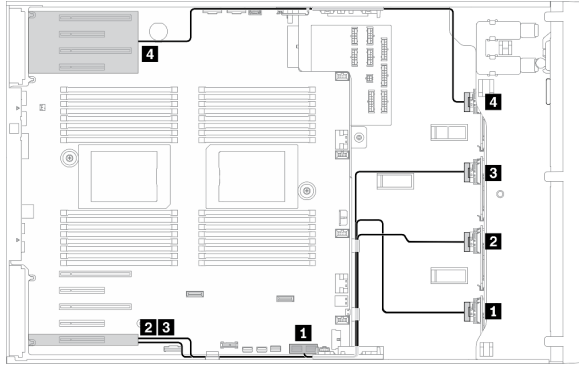


Figure 511. SAS/SATA cable routing to system board and top PCIe zone

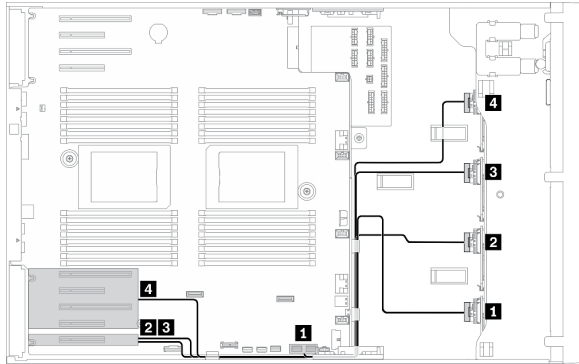


Figure 512. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 4 x 8i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

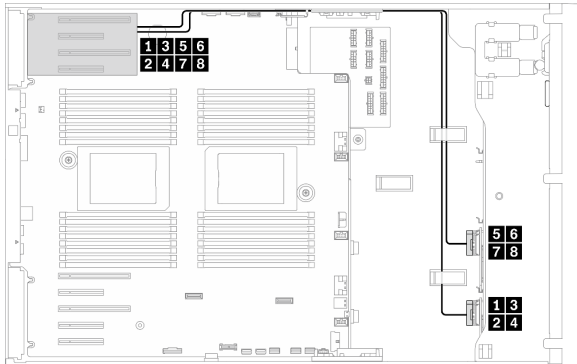


Figure 513. NVMe cable routing to top PCIe zone

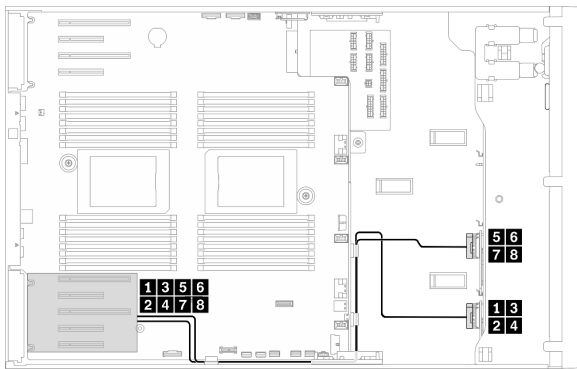


Figure 514. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

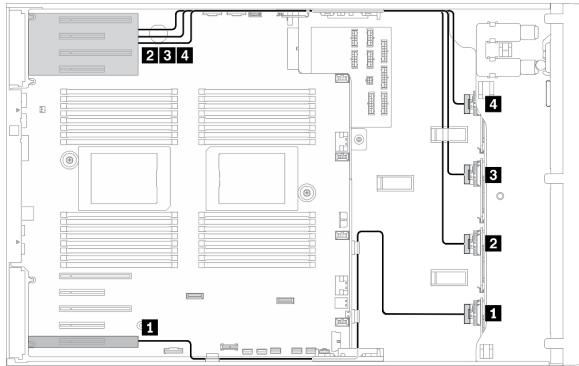


Figure 515. SAS/SATA cable routing to top PCIe zone

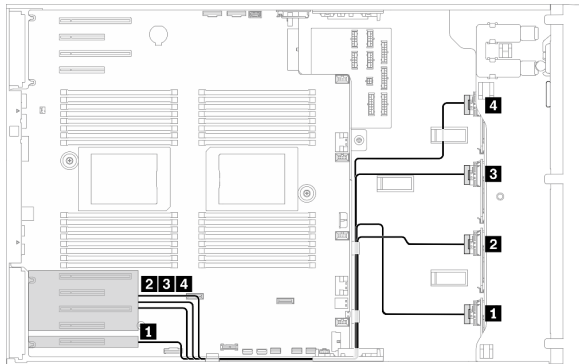


Figure 516. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>8i G4: C0</li> <li>8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

**4 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA**

**NVMe cable routing**

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

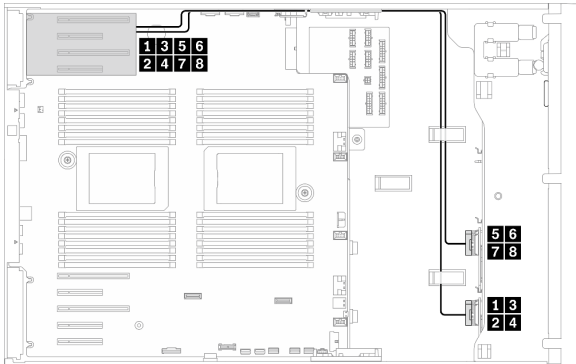


Figure 517. NVMe cable routing to top PCIe zone

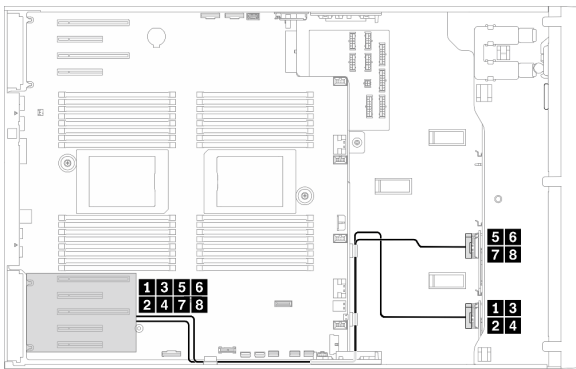


Figure 518. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

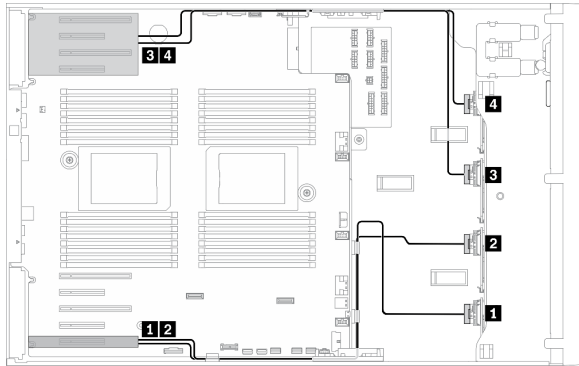


Figure 519. SAS/SATA cable routing to top PCIe zone

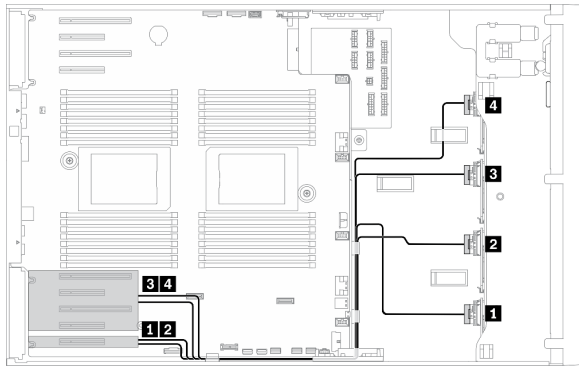


Figure 520. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 2 x 8i RAID/HBA + 1 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

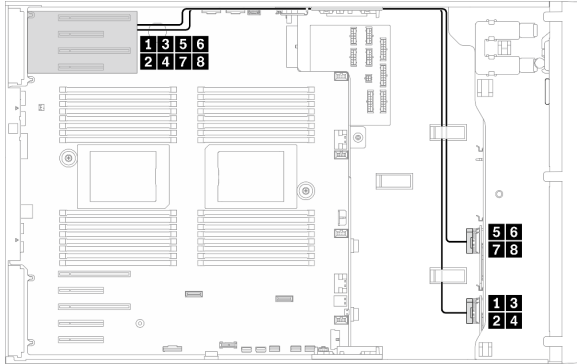


Figure 521. NVMe cable routing to top PCIe zone

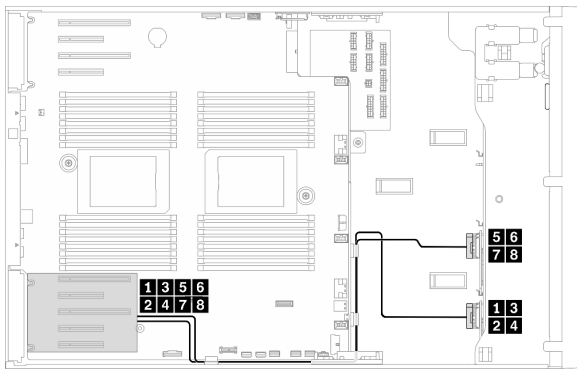


Figure 522. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

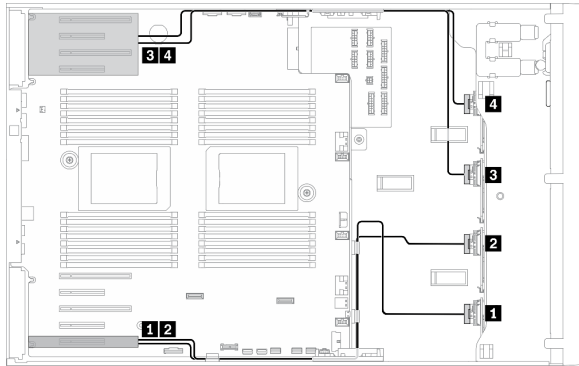


Figure 523. SAS/SATA cable routing to top PCIe zone

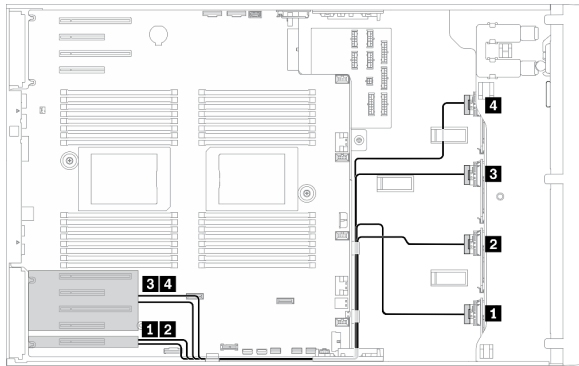


Figure 524. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 8i G4: C0</li> <li>• 8i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 2 x 16i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

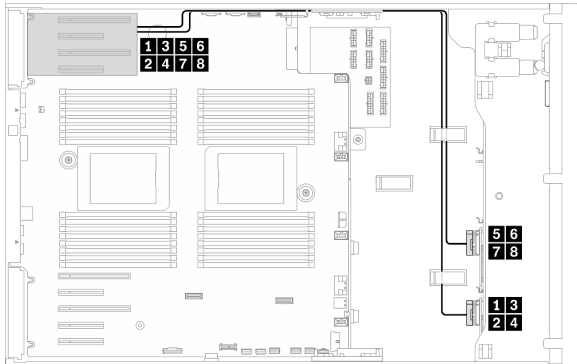


Figure 525. NVMe cable routing to top PCIe zone

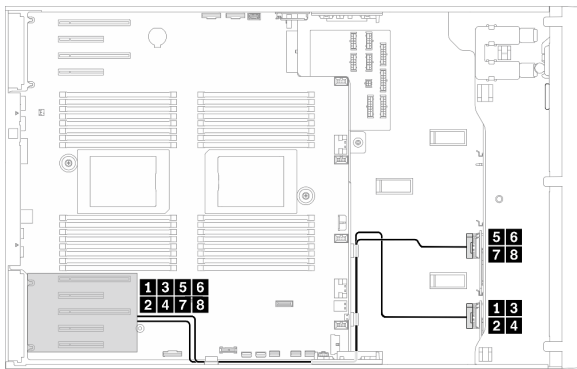


Figure 526. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

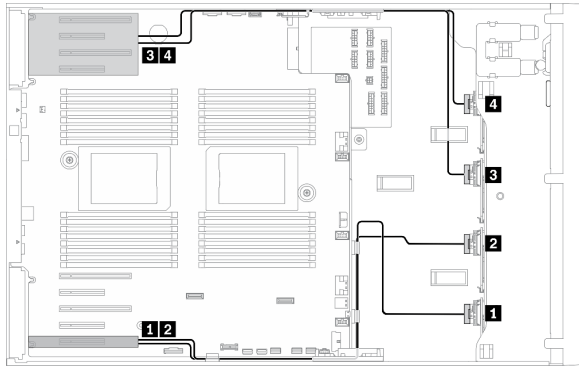


Figure 527. SAS/SATA cable routing to top PCIe zone

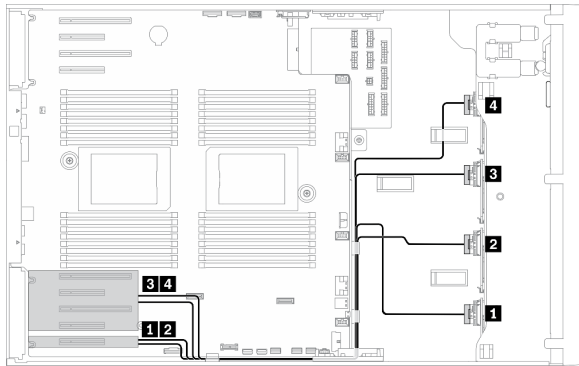


Figure 528. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>2</b> BP2: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C0</li> <li>16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>16i G4: C1</li> <li>16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

**4 x retimers + 1 x 16i RAID/HBA + 1 x 24i RAID/HBA**

**NVMe cable routing**

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

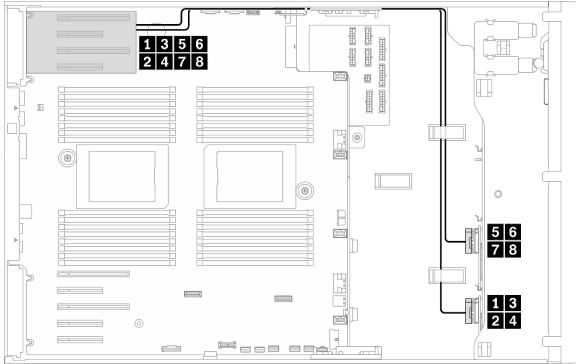


Figure 529. NVMe cable routing to top PCIe zone

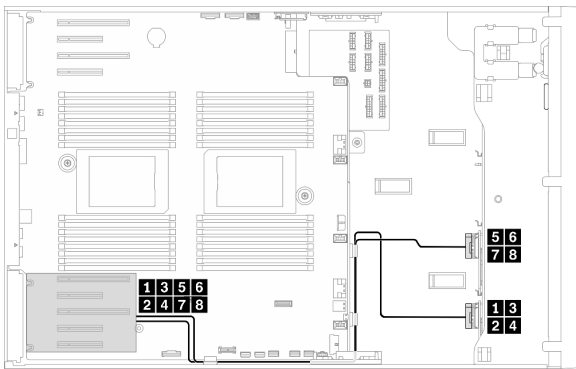


Figure 530. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

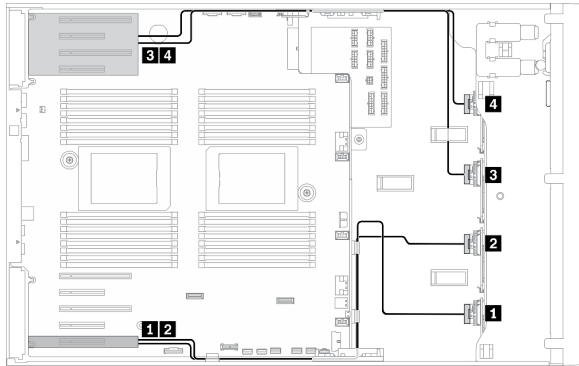


Figure 531. SAS/SATA cable routing to top PCIe zone

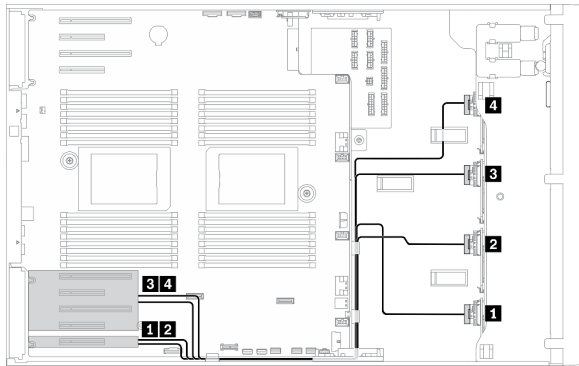


Figure 532. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C0</li> <li>• 16i G3: C0, C1</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>
<b>4</b> BP4: SAS/SATA	<ul style="list-style-type: none"> <li>• 16i G4: C1</li> <li>• 16i G3: C2, C3</li> </ul>	<ul style="list-style-type: none"> <li>• Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm)</li> <li>• Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)</li> </ul>

## 4 x retimers + 2 x 24i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

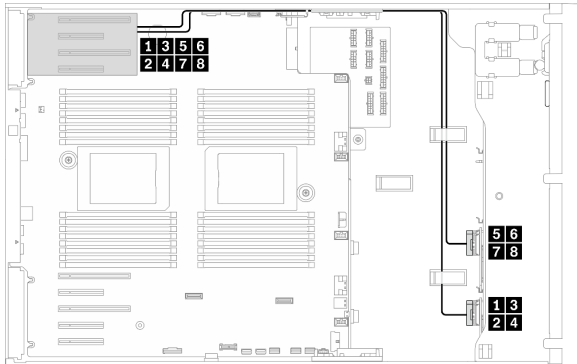


Figure 533. NVMe cable routing to top PCIe zone

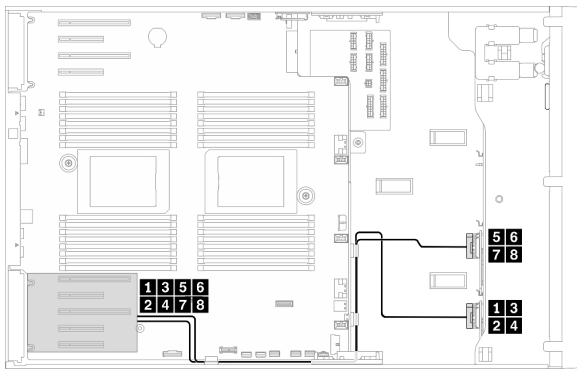


Figure 534. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	



## SAS/SATA cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

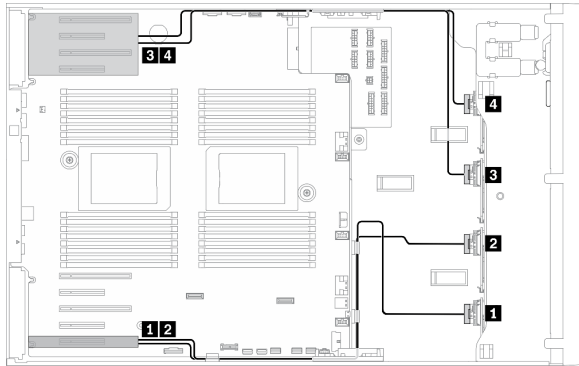


Figure 535. SAS/SATA cable routing to top PCIe zone

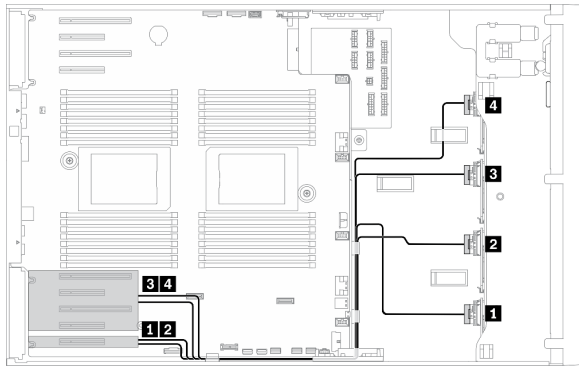


Figure 536. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>2</b> BP2: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
<b>3</b> BP3: SAS/SATA	24i G3: C0, C1	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)
<b>4</b> BP4: SAS/SATA	24i G3: C2, C3	Gen 3: Mini-SAS x4*2 to SlimSAS x8 (930 mm)

## 4 x retimers + 1 x 32i RAID/HBA

### NVMe cable routing

**Note:** Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

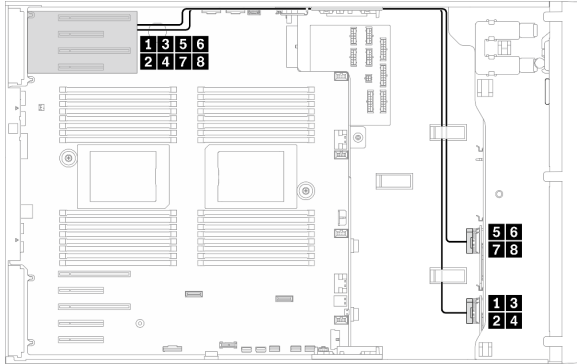


Figure 537. NVMe cable routing to top PCIe zone

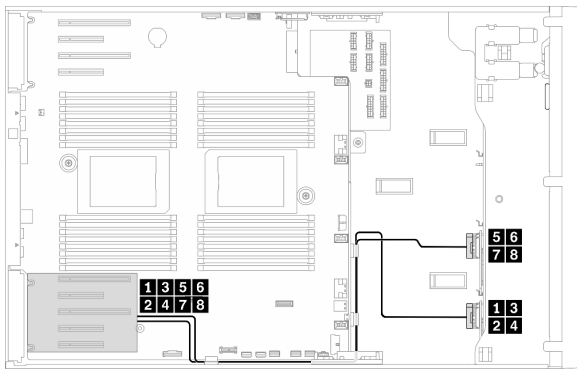


Figure 538. NVMe cable routing to bottom PCIe zone

From	To	Cable
<b>1</b> BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>2</b> BP1: NVMe 2-3	Retimer: C1	
<b>3</b> BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>4</b> BP1: NVMe 6-7	Retimer: C1	
<b>5</b> BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>6</b> BP2: NVMe 2-3	Retimer: C1	
<b>7</b> BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
<b>8</b> BP2: NVMe 6-7	Retimer: C1	

## SAS/SATA cable routing

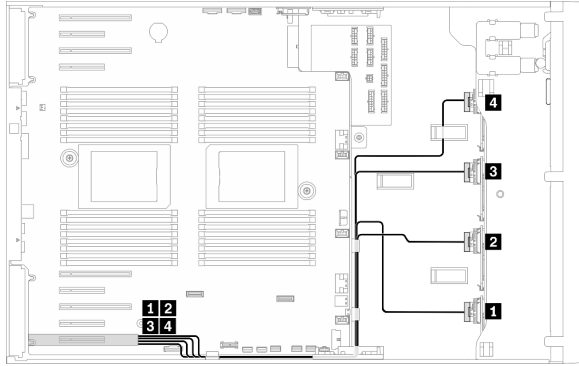


Figure 539. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
<b>1</b> BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>2</b> BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>3</b> BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)
<b>4</b> BP4: SAS/SATA	32i G4: C3	SlimSAS x8 to SlimSAS x8 (880 mm)



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