

Cohesity 5270 Appliance Product Description Guide

Cohesity 5270 Product Description Guide

Last updated: 2026-04-23

Legal Notice

Copyright © 2026 Cohesity All rights reserved.

© 2026 Cohesity All Rights Reserved. Cohesity, the Cohesity Logo and other Cohesity Marks are trademarks of Cohesity in the US and/or internationally. The information supplied herein is the confidential and proprietary information of Cohesity and may only be used (a) by the intended recipients and (b) in conjunction with validly licensed Cohesity software and services. Find the terms of Cohesity licenses at www.cohesity.com/agreements.

THE DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID. COHESITY SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE FURNISHING, PERFORMANCE, OR USE OF THIS DOCUMENTATION. THE INFORMATION CONTAINED IN THIS DOCUMENTATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

Cohesity Support

Reach Cohesity Support

There are several ways to create a Cohesity support case.

- Go to [Cohesity Support](#), to search in our knowledge base; or contact us by phone - United States and Canada: 1-855-9CO-HESI (926-4374), option 2.
- Log in to the [Cohesity Support Portal](#) to create a new case.
- Click the (?) icon on the Cohesity UI and select Support Portal.

Support/Service Assistance

First, contact the Service Provider that you have contracted for service and support. If you work directly with Cohesity and have a product warranty/entitlement, repair pricing, or technical support-related question, see your options below:

- To find solutions to your product issues or for suggestions or best practices, visit the [Cohesity Knowledge Base](#).
- Log in to the [Cohesity Support Portal](#) to create a new case.
- To monitor your open cases, log in to the portal and click the **Cases** tab on the home page. This page should have all the case statuses and updates. You can also view individual case status.

Cohesity Software Running on Partner Hardware

For Cohesity software running on qualified third-party hardware, the following support workflow applies:

1. The customer may contact Cohesity Support first if the issue cannot be determined as a hardware issue.

Note: Cohesity cannot process hardware replacement requests for partner hardware.

2. Cohesity Support triages the issue. If it is a software issue, Cohesity Support continues to work on it.
3. If it is a hardware/firmware issue or is suspected to be a hardware/firmware issue, Cohesity provides information about the issue to the customer and requests that the customer open a support ticket with the appropriate partner.
4. If needed, Cohesity Support can join a three-way call with the partner and the customer.
5. The customer informs Cohesity Support on the progress of the partner's case.

Documentation

Make sure that you have the current version of the documentation. Each document displays the date of the last update on page 2. The latest documentation is available on the Cohesity website:

<https://sort.veritas.com/documents>

Documentation feedback

Your feedback is important to us. Suggest improvements or report errors or omissions to the documentation. Include the document title, document version, chapter title, and section title of the text on which you are reporting. Send feedback to:

NB.docs@veritas.com

You can also see documentation information or ask a question on the Cohesity community site:

<http://www.veritas.com/community/>

Cohesity Services and Operations Readiness Tools (SORT)

Cohesity Services and Operations Readiness Tools (SORT) is a website that provides information and tools to automate and simplify certain time-consuming administrative tasks. Depending on the product, SORT helps you prepare for installations and upgrades, identify risks in your datacenters, and improve operational efficiency. To see what services and tools SORT provides for your product, see the data sheet:

https://sort.veritas.com/data/support/SORT_Data_Sheet.pdf

Contents

Chapter 1	About the 5270 Appliance	6
	Cohesity 5270 Appliance overview	6
	Features and components of the Cohesity 5270 Appliance	7
	Locating the appliance serial number	9
	5270 Appliance front panel drive configurations	9
	About the drive LEDs	11
	About the front panel USB port	12
	About the 5270 Appliance control panel	12
	About the System Status LED states	13
	About the Power button LED states	14
	About the integrated BMC beep codes	14
	About the 5270 Appliance rear panel	14
	5270 Appliance I/O configuration	16
	Available 5270 Appliance PCIe-based I/O configuration options	17
	Customizable I/O configurations by slot for 5270 Appliance	18
	5270 Appliance total I/O on-board and PCIe ports	19
	Broadcom P225p 10/25Gb PCIe Ethernet card	20
	QLE2772 dual-port 32 Gb Fibre Channel host bus adapter	21
	Broadcom RAID Adapter 9580-8i8e	22
 Chapter 2	 About the 2U12 Storage Shelf	 24
	Storage Shelf overview	24
	Usable appliance storage capacities	25
	Components of the Storage Shelf	27
	Storage Shelf front panel components	27
	Storage Shelf control panel	29
	Storage Shelf rear components	31
	Storage Shelf I/O modules	32
	I/O module Status LED location and conditions	34
	I/O module SAS Activity LED location and conditions	34
	Storage Shelf Power Cooling Modules	35
	Power Cooling Module LEDs	37

Chapter 3	5270 Appliance and 2U12 Storage Shelf cables	
		39
	Power cables	39
	Network cable	40
	Multi-Mode fiber optic cable	41
	Twinaxial copper cables	43
	SAS-3 cable	44
Appendix A	Technical specifications, Environmental/Protocol standards, and Compliance standards	45
	Cohesity 5270 Appliance technical specifications	45
	2U12 Storage Shelf technical specifications	48
	Environmental specifications	50
	Protocol standards	51
	Regulatory, compliance, and certification information	52
	Product regulatory compliance	52
	Country approvals	53
	Product safety compliance	53
	Product EMC Compliance - Class A Compliance	53
	Product environmental compliance	54

About the 5270 Appliance

This chapter includes the following topics:

- [Cohesity 5270 Appliance overview](#)
- [Features and components of the Cohesity 5270 Appliance](#)
- [Locating the appliance serial number](#)
- [5270 Appliance front panel drive configurations](#)
- [About the 5270 Appliance control panel](#)
- [About the 5270 Appliance rear panel](#)
- [5270 Appliance I/O configuration](#)

Cohesity 5270 Appliance overview

The Cohesity 5270 Appliance is a scalable hardware and software storage system designed for enterprise backup environments. It provides 9.1 TiB to 36.4 TiB of internal storage in its base 2U configuration, with expansion support for up to six 2U12 Storage Shelves, enabling a maximum usable capacity of 991 TiB.

Figure 1-1

5270 Appliance



A 2U12 8TB-based storage shelf offers 65.5 TiB of storage. The 5270 Appliance supports upto 6 storage shelves. As with previous generations of the Flex 52xx

appliances, the Cohesity 5270 Appliance can be configured as a primary server or a media server or both.

A 2U12 20TB-based storage shelf offers 163 TiB of storage but this option is supported only with a configuration of six storage shelves.

SAS-3 cables connect the Cohesity 5270 Appliance to the storage shelves. SAS-3 cables also connect the storage shelves to each other.

The Cohesity 5270 Appliance supports the following software:

- Flex Appliance 7.0 and above

About Cohesity 5270 Appliance configurations

To determine the right Cohesity 5270 Appliance system for your environment, you should consider the environment's future storage requirements over the lifetime of the system.

Cohesity offers multiple storage configurations from which to choose. You can use the supported 5270 Appliance storage configurations to best serve the needs of your particular environment.

Cohesity 5270 Appliance configuration and capacity options:

- Base Appliance Configurations:
 - One Cohesity 5270 Appliance with 9.1 TiB of internal storage only
 - One Cohesity 5270 Appliance with 36.4 TiB of internal storage only
- Expandable Storage Configurations (8TB Drives)

For deployments requiring additional capacity, one Cohesity 5270 Appliance supports expansion with up to 6 storage shelves using 8TB drives. The maximum capacity with 6 storage shelves is 429.4 TiB.
- High-Density Storage Configuration (20TB Drives)

For large-scale, long-term retention deployments, one Cohesity 5270 Appliance with six external storage shelves using 20TB drives for a total of 991 TiB of storage.

Features and components of the Cohesity 5270 Appliance

This section describes the features and components of the Cohesity 5270 Appliance.

Table 1-1 Cohesity 5270 Appliance features

Feature	Description
Processor	Intel Xeon Scalable Fifth generation Silver 4514Y
Appliance software version	Flex Appliance 7.0 or higher
Performance and capacity	- Supports high-performance processors with low-power consumption. - Available internal storage capacities of 9 TB, or 36 TB without optional external storage shelves. The available capacity can be allocated either in part or in whole to a deduplication pool or to an AdvancedDisk pool (non-deduplicated storage).
System memory configuration (DIMMS)	64GB, up to a maximum of 512GB (for expandable storage configurations with 8TB drives) 768GB (for high-density storage configurations with 20TB drives) Note: When you purchase the first storage expansion shelf, it includes both the storage expansion shelf and 256GB of memory that replaces the existing 64GB. In addition, when purchasing the fifth expansion shelf, 256GB of memory is also included with the storage shelf. When purchasing 991 TiB storage configuration, memory should be upgraded to 768 GB replacing base 64GB memory with no storage shelves configuration.
Space reduction	The deduplication engine provides up to 100 times reduction in storage. The client-side plug-in provides similar levels of bandwidth reduction.
Scalable architecture	Due to fingerprinting and RAID redundancy, the overall storage capabilities are not a simple multiplication of the disk size and the total number of disks.
High availability	Supports redundant hot-swappable disks and power modules.
RAID levels	RAID 1 (standard mirroring) and RAID 6 (block level striping with double distributed parity) are implemented as follows: - Appliance system disks: RAID 1 - Appliance storage disks: RAID 6 - Storage shelf data storage disks: RAID 6 Note: The disk drives in the appliance are pre-formatted before the appliance is shipped. These drives should not be moved into different slots or otherwise rearranged.
Fibre Channel support	The Cohesity 5270 Appliance can be ordered with none, one, two, three or four PCIe 32 Gb Fibre Channel host bus adapter cards preinstalled.

Table 1-1 Cohesity 5270 Appliance features (*continued*)

Feature	Description	
PCIe 10/25 Gb Ethernet cards	Yes (with Fibre Optic ports)	
I/O Ports	12 Gb SAS-3 ports (PCIe-based) (RAID controller)	2 Used to connect the Appliance compute node to the 2U12 Primary Storage Shelf
	10/25 GbE Ethernet ports (PCIe-based)	Up to eight, depending on the appliance I/O configuration
	32 Gb Fibre Channel ports (PCIe-based)	Up to eight, depending on the appliance I/O configuration
	10 Gb Ethernet ports (on-board)	4
Additional storage	Yes You can attach up to six optional storage shelves to the Cohesity 5270 Appliance. Depending on the appliance configuration you purchase, multiple usable storage capacity options are available.	

Locating the appliance serial number

The serial number can also be found on the service tab, on the front bottom right side of the appliance.

You can also find the serial number under the FRU information on the IPMI.

5270 Appliance front panel drive configurations

The 5270 Appliance contains 3 NVMe solid state drives, and 8 SAS hard disk drives, which can be accessed from the appliance's front panel.

Figure 1-2

5270 Front panel



The drives that are located in D0 and D1 are configured as the RAID1 device. These drives contain the appliance operating system and the Flex application along with the log files. You can hot-swap one of these drives at a time; however, you cannot operate the appliance if both drives are removed.

The drive in D2 acts as a hot spare for OS and log files. D3 is a blank slot with empty carrier.

The drives in slots D4-D10 store user data. They are configured as a RAID 6 array, which uses block-level striping with two parity blocks across each of the drives in the volume.

The appliance uses the drive that is located in D11 as a dedicated hot-spare drive. If one of the drives fails in D4-D10, the appliance automatically initiates a RAID 6 rebuild operation. It rebuilds the RAID 6 array by using the hot-spare drive in D11. After you replace the failed drive, the appliance then copies the information from the drive in D11 to the new replacement drive. When the copy operation finishes, the drive in D11 again becomes the hot-spare drive.

Note: The hot-spare drive size depends on the data drive size.

Warning: The drives are pre-formatted before the appliance is shipped. Do not rearrange the drives from their original locations.

Table 1-2

5270 Appliance front panel drive configurations

Slot	RAID Configuration	Drive size	Drive role
D0-D1	RAID 1	1.92 TB	OS and log files
D2	RAID 1	1.92 TB	Hot spare for OS and log drives
D3	N/A	N/A	Empty Carrier

Table 1-2 5270 Appliance front panel drive configurations (*continued*)

Slot	RAID Configuration	Drive size	Drive role
D4 – D10	RAID 6	2TB 8TB	User storage data
D11	RAID 6	2TB 8TB	Hot spare for user storage data

About the drive LEDs

The 5270 Appliance front panel includes drive status and activity LEDs.

Figure 1-3 Drive LEDs



Table 1-3 Drive Status LED descriptions

Description	LED behavior	Condition
Amber Status LED	Off	No drive access and no disk drive faults
	Solid amber	A drive fault has occurred
	Blinking amber	A RAID rebuild is in progress (1Hz blink) Locating / identifying the drive (2Hz blink)

Table 1-4 Drive Activity LED States

Description	LED behavior	Condition
Blue Activity LED	Off	Power off - the drive has spun down
	Solid blue	Power on - no drive activity
	Blinking blue	Power on - I/O is being processed by the drive or Power on - the drive is spinning up

About the front panel USB port

The 5270 Appliance front panel includes one USB 3.0 and one USB 2.0 compliant port that supports data transfer rate of up to 500 Mb/second.

About the 5270 Appliance control panel

The front control panel provides push button system controls and LED indicators for several system features.

Figure 1-4

5270 Control panel

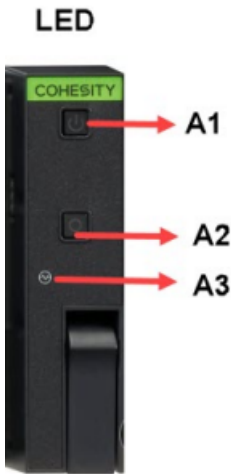


Table 1-5

Control panel system LED descriptions

Item	LED	System information
A1	Power button with integrated LED (Blue)	The Power button toggles the system on and off. This button also functions as a sleep button if enabled by an ACPI compliant operating system. Pressing this button sends a signal to the integrated BMC that either powers on or powers off the system. Holding the power button for 10 seconds or more leads to a hard shutdown. The integrated LED is a single color (blue) and supports different indicator states as defined in the following table.

Table 1-5 Control panel system LED descriptions (*continued*)

Item	LED	System information
A2	System ID button with integrated LED (Blue)	■ ON: ■ If the IPMI Chassis Identify command is received. It will automatically turn off after 15 seconds (by default). ■ If the Chassis ID button on the front panel is pressed. Press the button again to turn off the LEDs. ■ Blinking: Unit selected for identification. ■ OFF: No identification request.
A3	Status LED (Red)	■ ON: ■ Critical failure: Critical fan, voltage, temperature state. ■ Non-critical failure: Non-critical fan, voltage, temperature state, CPU thermal trip, DC off. ■ Detected case intrusion alert. ■ OFF: ■ SEL cleared. ■ Last pending warning or error has been de-asserted.

About the System Status LED states

The following table provides a description of each LED state.

Table 1-6 System Status LED states

Color	State	Criticality	Description
No color	Off - The system is not operating.	Not ready	System power is off (AC and/or DC)

Table 1-6 System Status LED states (*continued*)

Color	State	Criticality	Description
Red	Solid on (SO)	Critical	■ ON: ■ Critical failure: Critical fan, voltage, temperature state. ■ Non-critical failure: Non-critical fan, voltage, temperature state, CPU thermal trip, DC off. ■ Detected case intrusion alert. ■ OFF: ■ SEL cleared. ■ Last pending warning or error has been de-asserted.

About the Power button LED states

The following table provides a description of each power state.

Table 1-7 Power button LED states

State	Power Mode	LED	Description
Power - off	Non-ACPI	Off	The system power is off, and the BIOS has not initialized the chipset.
Power - on	Non-ACPI	On	The system power is on and the blue Power button LED is active.

About the integrated BMC beep codes

The integrated BMC does not generate any beep codes upon detection of failure conditions. Any failure conditions are in the System Event (SEL) log.

About the 5270 Appliance rear panel

The rear panel of the appliance has several access ports and other features, which are displayed in the following figures.

Figure 1-5 5270 Rear panel

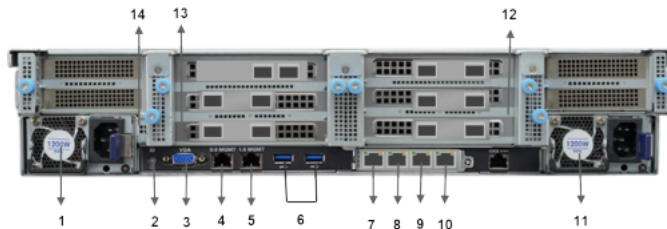


Table 1-8 5270 Appliance rear panel features and connectors

Number	Function
1,11	Power Supply 1 and Power Supply 2 - Dual, redundant, and hot-swappable power supply modules
2	ID button
3	DB-15 VGA port
4	IPMI remote management port - An external RJ45 port used for appliance remote management purposes
5	Unused port
6	Two USB3.2 Gen1 ports for general use
7	Flex Appliance (host1): A 1-10 GbE port copper connector that you can connect to an administrative network to manage the appliance system. It is bonded during initial configuration as a standalone bond mgmt0.
8	Flex Appliance (host0): A 1-10 GbE port for general use.
9	Flex Appliance (NIC0): A 1-10 GbE port for general use.
10	Flex Appliance (NIC1): A 1-10 GbE port for general use.
12	PCIe riser assembly 1
13	PCIe riser assembly 2

Table 1-8 5270 Appliance rear panel features and connectors (*continued*)

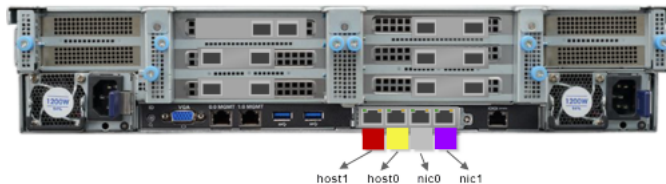
Number	Function
14	PCIe riser assembly 3 Contains two half height PCIe slots. Note: PCIe riser assembly 2 and riser assembly 3 are riveted together. As a result, riser assembly 2 and riser assembly 3 are removed as one unit.

Note: The embedded Ethernet ports are copper. PCIe Ethernet ports are optical. You cannot bond the copper ports and the optical ports to each other.

The appliance does not include grounding studs in case your lab environment has such a requirement.

The ports on the rear panel are color-coded for easy identification.

Figure 1-6 5270 Rear panel color codes



5270 Appliance I/O configuration

The rear panel of the 5270 Appliance contains three PCIe riser card assemblies. PCIe riser card assemblies 1 and 2 each support three standard PCIe cards, while PCIe riser card assembly 3 supports two low profile PCIe cards. The slots are labeled 1 to 8. Slots 1, 2, and 3 are located in PCIe riser card assembly 2. Slots 4, 5, and 6 are located in PCIe riser card assembly 1, while slots 7 and 8 are located in PCIe riser card assembly 3.

Figure 1-7 Rear panel riser assembly locations and PCIe slot number assignments



Available 5270 Appliance PCIe-based I/O configuration options

The 5270 Appliance supports multiple PCIe-based I/O configuration options. The following table shows the different I/O configuration options that are available.

Table 1-9 Available Cohesity 5270 Appliance PCIe-based I/O configuration options

I/O configuration option	Slot 1	Slot 2	Slot 3 *	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8
A	10/25 GbE NIC	-	RAID	-	-	32 Gb FC HBA	-	-
B	10/25 GbE NIC	10/25 GbE NIC	RAID	10/25 GbE NIC	32 Gb FC HBA	32 Gb FC HBA	-	-
C	10/25 GbE NIC	10/25 GbE NIC	RAID	32 Gb FC HBA	32 Gb FC HBA	32 Gb FC HBA	-	-
D	10/25 GbE NIC	32 Gb FC HBA	RAID	32 Gb FC HBA	32 Gb FC HBA	32 Gb FC HBA	-	-
A2	10/25 GbE NIC	10/25 GbE NIC	RAID	-	-	-	-	-
A3	10/25 GbE NIC	10/25 GbE NIC	RAID	-	-	32 Gb FC HBA	-	-
A4	10/25 GbE NIC	10/25 GbE NIC	RAID	10/25 GbE NIC	-	-	-	-
A5	10/25 GbE NIC	10/25 GbE NIC	RAID	10/25 GbE NIC	-	32 Gb FC HBA	-	-
A6	10/25 GbE NIC	10/25 GbE NIC	RAID	10/25 GbE NIC	10/25 GbE NIC	-	-	-

Table 1-9 Available Cohesity 5270 Appliance PCIe-based I/O configuration options (*continued*)

I/O configuration option	Slot 1	Slot 2	Slot 3 *	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8
A7	10/25 GbE NIC	10/25 GbE NIC	RAID	10/25 GbE NIC	10/25 GbE NIC	32 Gb FC HBA	-	-

* Slot 3 contains a factory installed PCIe RAID controller

Customizable I/O configurations by slot for 5270 Appliance

You can use the supported 5270 Appliance I/O configurations to best serve the needs of your particular environment.

The following table provides information on the make and model of each the PCIe cards that are available for use in each appliance I/O slot.

Table 1-10 Acceptable PCIe-based I/O cards for each appliance I/O slot

Slot	Acceptable PCIe I/O card	Comment
1	Broadcom P225p Ethernet card	PCIe-based 10/25 Gb network interface card
2	QLE2772 dual-port 32 Gb Fibre Channel host bus adapter Broadcom P225p Ethernet card	PCIe-based 32 Gb Fibre Channel host bus adapter PCIe-based 10/25 Gb network interface card
3	Broadcom 9580-8i8e 12Gb/s 8 port Internal / 8 port External PCI-Express 4.0 X 8 SAS RAID controller	External RAID controller to which you connect a 2U12 Storage Shelf
4	QLE2772 dual-port 32 Gb Fibre Channel host bus adapter Broadcom P225p Ethernet card	PCIe-based 32 Gb Fibre Channel host bus adapter PCIe-based 10/25 Gb network interface cards

Table 1-10 Acceptable PCIe-based I/O cards for each appliance I/O slot
(continued)

Slot	Acceptable PCIe I/O card	Comment
5	QLE2772 dual-port 32 Gb Fibre Channel host bus adapter	PCIe-based 32 Gb Fibre Channel host bus adapter
	Broadcom P225p Ethernet card	PCIe-based 10/25 Gb network interface card
6	QLE2772 dual-port 32 Gb Fibre Channel host bus adapter	PCIe-based 32 Gb Fibre Channel host bus adapter

5270 Appliance total I/O on-board and PCIe ports

Table 1-11 Total number of 5270 Appliance on-board and PCIe I/O ports for each I/O configuration

I/O Configuration option	10 GbT Ethernet ports (copper)	10/25 Gb Ethernet PCIe ports (optical/SFP)	32 Gb Fibre Channel PCIe ports (optical/SFP)
A	4 on-board	2	2
B	4 on-board	6	4
C	4 on-board	4	6
D	4 on-board	2	8
A2	4 on-board	4	0
A3	4 on-board	4	2
A4	4 on-board	6	0
A5	4 on-board	6	2
A6	4 on-board	8	0
A7	4 on-board	8	2

Cable connection types:

copper = Standard copper cable

optical = Fiber optic cable

Broadcom P225p 10/25Gb PCIe Ethernet card

The Broadcom® BCM957414A4142CC is a dual-port 25 Gb/s, PCI-Express Gen3 x8 Network Interface Card that supports both SFP28/SFP+ optical modules and copper direct attach cable. The card uses the Broadcom BCM57414 25GbE MAC controller with the integrated dual channel 25GbE SFI transceiver.



Note: Cohesity recommends that you use Finisar FTLX8574D3BCV SFP part for 10G connectivity and Finisar FTLF8536P5PCV SFP part for 25G connectivity.

Note: The Broadcom P225p 10/25Gb PCIe Ethernet card does not support the installation of a 10G SFP and 25G SFP within the same card. You must either have SFPs with the same maximum speed on both ports at any given time or remove the unused SFP from the card.

Table 1-12 Broadcom P225p NIC adapter specifications

Item	Specification
Bracket height	Full height
Power consumption	Typical: 12.5 watts Maximum: 12.9 watts
Operating temperature	0°C to 55°C (32 F to 131 F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Table 1-12 Broadcom P225p NIC adapter specifications (*continued*)

Item	Specification
Storage humidity	90% at 35°C
System interface type	PCIe v3.0
Speed and slot width	8.0 GT/s (gigatransfers per second), 8-Lane
Data rate supported per port	10/25Gb
Air Flow (minimum)	150 LFM (linear feet per minute)

QLE2772 dual-port 32 Gb Fibre Channel host bus adapter

The QLE2772 dual-port 32 Gb Fibre Channel (FC) is used by the customer for networking.

**Table 1-13** QLE2772 dual-port 32Gb Fibre Channel host bus adapter specifications

Item	Description
Bracket height	Full Height

Table 1-13 QLE2772 dual-port 32Gb Fibre Channel host bus adapter specifications (*continued*)

Item	Description				
Form factor	Low-profile PCIe card (6.6 inches × 2.731 inches)				
Power consumption (watts)	Nominal: 11.0 W Maximum: 13.7 W				
Operating temperature	0°C to 55°C (32°F to 131°F)				
Storage temperature	–20°C to 70°C (–4°F to 158°F)				
Operating humidity	10% to 90%				
Storage humidity	5% to 95%				
System interface type	PCIe v4.0				
Certifications	UL, CSA, TUV, CB, FCC, VCCI				
Maximum cable distances	Rate	Cable and Distance (m) (multimode optic cable)			
		OM2	OM3	OM4	OM5
	8 Gbps	50	150	190	190
	16 Gbps	35	100	125	125
	32 Gbps	20	70	100	100

Broadcom RAID Adapter 9580-8i8e

The Broadcom RAID Adapter 9580-8i8e is a tri-mode RAID Adapter with 12Gb SAS-3 MegaRAID 8 internal and 8 external ports.

Figure 1-8

Broadcom RAID Adapter 9580-8i8e



Table 1-14

Broadcom 9580-8i8e RAID adapter specifications

Item	Specification
Bracket height	Low profile mounting bracket
Power consumption	Typical: 14.25 watts
Operating temperature	0°C to 55°C (32 F to 131 F)
Storage temperature	-45°C to +105°C (-49°F to +221°F)
Humidity non-condensing	5-90% RH (operating) 5-95% RH (non-operating)
System interface type	PCIe v4.0 (x8 PCI Express* 4.0 PCIe*)
Speed and slot width	16.0 GT/s (gigatransfers per second), 8-Lane
Data rate supported per port	12, 6, 3 Gbps per port SAS 6, 3 Gbps per port SATA 16 Gbps per lane NVMe*
Air Flow (minimum)	200 LFM (linear feet per minute)

About the 2U12 Storage Shelf

This chapter includes the following topics:

- [Storage Shelf overview](#)
- [Usable appliance storage capacities](#)
- [Components of the Storage Shelf](#)

Storage Shelf overview

The optional 2U12 8TB-based Storage Shelf is a 2U12 drive enclosure that contains twelve 8TB 7200 rpm SAS hard disk drives. Available storage capacity of the storage shelf is 65 TiB. A 2U12 20TB-based storage shelf offers 163 TiB of storage but this option is supported only with a configuration of six storage shelves. Each disk drive can be accessed from the storage shelf's front panel. The PCIe RAID controller is used to configure the disk drives into a RAID 6 configuration. One of the disk drives is reserved as a global hot spare and can be used in case of any drive failure.

The Storage Shelf also contains two Storage Bridge Bay 2.1 compliant (SBB) Input/Output (I/O) modules. Each I/O module has three mini-SAS HD ports, which are labeled A, B, and C. As such, each storage shelf contains a total of six mini-SAS HD I/O ports. However, only ports A and B of each I/O module are used to connect the storage shelf to the appliance or other storage shelves.

Each I/O module also includes one Ethernet port and a 3.5mm RS232 Interface-to-Enclosure Services Processor jack. The Ethernet port and the RS232 jack are only used during on-site debugging operations. They are not used during normal appliance operations.

Along with the I/O modules and the disk drives, the Storage Shelf also includes a front control panel. The control panel provides LED indications of the health of the storage shelf. It uses a dual seven segment display for enclosure identification and a switch that is used for storage shelf configuration purposes.

The Storage Shelf serial number appears on a plastic panel on the left side of Power Cooling Module 0 (PCM 0). The storage shelf serial number begins with the letters SH.

See [“Storage Shelf front panel components”](#) on page 27.

See [“Storage Shelf rear components”](#) on page 31.

See [“Storage Shelf control panel”](#) on page 29.

Usable appliance storage capacities

This section describes the usable storage capacities of the Cohesity 5270 Appliance and 2U12 Storage Shelves

Table 2-1 Usable storage capacities - Cohesity 5270 Appliance and Cohesity 2U12 Storage Shelves

Appliance only	Storage shelf capacity	Appliance and one storage shelf	Appliance and two storage shelves	Appliance and three storage shelves	Appliance and four storage shelves	Appliance and five storage shelves	Appliance and six storage shelves
10TB (9.1TiB)	72TB (65.5TiB)	82TB (74.6 TiB)	154TB (140.1 TiB)	226TB (205.6 TiB)	298TB (271.1TiB)	370TB (336.6TiB)	442TB (402.1TiB)
40TB* (36.4TiB)	72TB (65.5TiB)	112TB (101.9TiB)	184TB (167.4TiB)	256TB (232.9TiB)	328TB (292.4TiB)	400TB (363.9TiB)	472TB (429.4TiB)
10TB (9.1TiB)	179TB (163TiB)	N/A	N/A	N/A	N/A	N/A	1089.6 TB (991 TiB)

Note: Usable storage capacities are rounded values. Cohesity calculates these values from the raw storage capacities of the various Cohesity 5270 Appliance-only configurations. The raw capacity of the 2U12 8TB-based Storage Shelf is 65.5 tebibyte. To determine the exact usable capacities of each configuration, use the following formulas: <appliance-only capacity> + 65.5 = exact usable capacity

* You can add up to six 8TB Storage Shelves to an existing Cohesity 5270 Appliance with internal storage capacities of 9.1TiB or 36.4TiB. However, before you place

the system into a production environment, you must migrate all MSDP data from the appliance to the first external storage shelf. After you migrate the MSDP data, the system's usable storage space may fluctuate, depending on how much actual storage space the MSDP data pool uses.

The raw capacity of the 2U12 20TB-based Storage Shelf is 163 terabyte. But this option is available only with 6 storage shelves. To determine the exact usable capacities of each configuration, use the following formulas: <appliance-only capacity> + 163 * 6 = exact usable capacity

Four memory configurations are supported on the 5270 Appliance.

- 64GB (comprised of 4x 16GB memory DIMMs)
- 256GB (comprised of 8 x 32GB memory DIMMs)
- 512GB (comprised of 16 x 32GB memory DIMMs)
- 768 GB (comprised of 12 x 64GB memory DIMMs)

Table 2-2 Minimum memory requirements for the 5270 Appliance

Appliance configuration	Minimum memory
9TB or 36TB Server node only	64GB
Appliance node with 1-4 Storage Expansion Shelves (8TB drives)	256GB
Appliance node with 5-6 Storage Expansion Shelves (8TB drives)	512GB
Appliance node with 6 Storage Expansion Shelves (20TB drives)	768GB

A 9TB or 36TB capacity appliance without any storage expansion shelves is shipped with 64GB of memory. When the first 2U12 Storage shelf is purchased, it includes a 256GB memory upgrade kit. The four existing 16GB DIMMs must be removed from the server node and the 32GB DIMMs should be installed in the recommended slots. All memory DIMMs in the appliance must be of the same size, which means that a mix of 16GB and 32GB DIMMs is not supported.

When the fifth storage shelf is purchased, it also includes a 256GB memory upgrade kit. These eight 32GB DIMMs should be installed alongside the existing 32GB DIMMs.

The maximum supported memory configuration is 512GB for storage configurations with 8TB drives. A 256GB memory upgrade kit is available for those use cases that require more than the minimum memory requirements for four shelves and fewer.

For high-density storage configuration with 20TB drives, 768GB of memory is required.

Note: Spanning MSDP data across both Cohesity 5270 Appliance internal storage and a storage shelf is not recommended as it may result in degraded performance.

Warning: Failure to migrate MSDP data after you connect a storage shelf may result in degraded appliance throughput performance.

For more information about migrating MSDP data, see the following document: [Moving the MSDP partition from a base disk to an expansion disk for optimum performance](#).

Components of the Storage Shelf

The following sections describe the components of the 2U12 Storage Shelf.

Storage Shelf front panel components

Hard disk drive capacities and drive bay slot assignments

The 2U12 Storage Shelf contains 12 disk drive storage bays that are populated with 8 TB 7200 rpm SAS hard disk drives. The available backup storage capacity of the storage shelf equals 65 TiB. One of the disk drives is reserved as a hot spare. All disk drives are accessible from the front panel of the storage shelf after you remove the storage shelf bezel.

The following figure shows the front panel disk drive slot assignments within the 2U12 Storage Shelf.

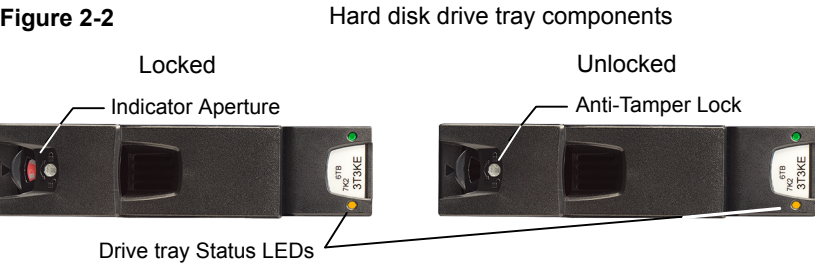
Figure 2-1 2U12 Storage Shelf disk drive slot layout



The storage shelf uses the drive that is located in slot 11 as a hot-spare drive.

Hard disk drive carrier characteristics

Each storage shelf hard drive is housed in a disk drive carrier. Each disk drive carrier uses a locking mechanism that secures the disk drive within the storage shelf.



The following table describes the disk drive carrier LEDs. Note that the combination of both LEDs provides the status.

Table 2-3 2U12 Storage Shelf disk drive carrier LED status

Status	Activity (green) LED	Fault (amber) LED
No disk drive installed.	OFF	OFF
Drives are installed, turned on, and operational.	Blinks during I/O activity and during startup.	OFF
SCSI Enclosure Services (SES) Device identity set.	ON	Blinks at a rate of 1 second ON and 1 second OFF.
Drive slot fault.	OFF	ON
Drive fault. Power control circuit fault.	ON	ON
Logical fault. Possible drive failed.	ON	Blinks at a rate of 3 seconds ON and one 1 second OFF.

Note: For security purposes, each drive tray is locked by default when the storage shelf is shipped from the factory. To access a hard disk drive, each storage bay must be unlocked using a T10 torx screw driver.



Storage Shelf control panel

The 2U12 Storage Shelf control panel is installed on the front left side of the storage shelf.

Figure 2-3

2U12 Storage Shelf control panel

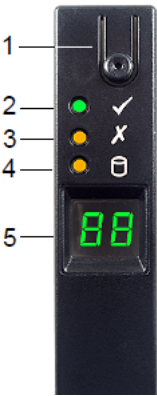


Table 2-4

2U12 Storage Shelf control panel functions

Number	Item	Description
1	Input switch	The Input switch enables you to set the Unit Identification display.
2	Power On / Standby LED (Green or Amber)	The Power On/Standby LED shows Amber when only standby power is available. Otherwise, the LED shows Green when system power is available.

Table 2-4 2U12 Storage Shelf control panel functions (*continued*)

Number	Item	Description
3	Module Fault LED (Power Cooling Module, Cooling, I/O module status) (Amber)	The Module Fault LED illuminates when there is a system hardware fault. The system hardware fault may be associated with a fault LED on a Power Cooling Module (PCM) or on an I/O module.
4	Logical status LED (amber)	The Logical Status LED shows a change of status or a fault. Typically these changes of status or faults are associated with the shelf's disk drives. However, the Logical Status LED can also indicate an issue with an internal RAID controller or external RAID controller, or with a host bus adapter.
5	Unit Identification Display	The Unit Identification Display is a dual digit display that provides information about the storage shelf. Its primary function is to assist in the configuration of multiple storage shelves.

Table 2-5 Control panel LED conditions and statuses

System Power (Green or Amber)	Module Fault (Amber)	Logical Fault (Amber)	Associated LEDs/Alarms	Status
On (Amber)	Off	Off	None	Standby power present, Overall Power failed or switched off
On (Green)	On (Amber)	N/A	Single beep, then double beep	Control Panel Power on - test state (Test state = 5 seconds)
On (Green)	Off	Off	None	Power On - All functions good
On (Green)	On (Amber)	N/A	Power Cooling Module Fault LEDs Fan Fault LEDs	Any Power Cooling Module Fault, Fan Fault, or an over or under temperature issue
On (Green)	On (Amber)	N/A	I/O module LEDs	Any I/O module fault
On (Green)	On (Amber)	N/A	None	Enclosure Logical Fault

Table 2-5 Control panel LED conditions and statuses (*continued*)

System Power (Green or Amber)	Module Fault (Amber)	Logical Fault (Amber)	Associated LEDs/Alarms	Status
On (Green)	Flashing	N/A	Module Fault LED on an I/O module	Unknown I/O module type installed (Invalid or Mixed)
On (Green)	Flashing	N/A	Power Cooling Module Fault LEDs Fan Fault LEDs	Unknown Power Cooling Module installed. (Invalid or Mixed)
On (Green)	N/A	On	Array in a failed or degraded state	Drive failure has occurred causing loss of availability or redundancy
On (Green)	N/A	Flashing	Arrays in an impacted state	Array operating background function
On	Flashing	N/A	SES state S1	Enclosure ID setting different from "start of day" setting

N/A - Not Applicable

For more information, see the *Cohesity 5270 Appliance Hardware Installation Guide*.

Storage Shelf rear components

This section describes the rear panel features of the Cohesity 2U12 Storage Shelf.

The following figure provides an overview of the components that comprise the Cohesity 2U12 Storage Shelf rear panel.

Figure 2-4 Cohesity 2U12 Storage Shelf rear components

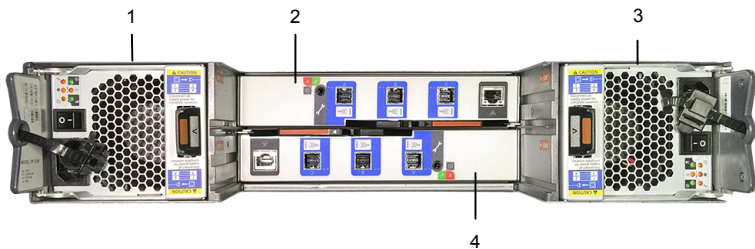


Table 2-6 Cohesity 2U12 Storage Shelf rear components

Number	Component
1	Power Cooling Module 0 (PCM0)
2	I/O module 0
3	Power Cooling Module 1 (PCM1)
4	I/O module 1

Storage Shelf I/O modules

This section discusses the Cohesity 2U12 Storage Shelf I/O modules.

Figure 2-5 Cohesity 2U12 Storage Shelf I/O module



The following figure and table provides details of the two Cohesity 2U12 Storage Shelf I/O module canisters.

Figure 2-6 Cohesity 2U12 Storage Shelf I/O modules

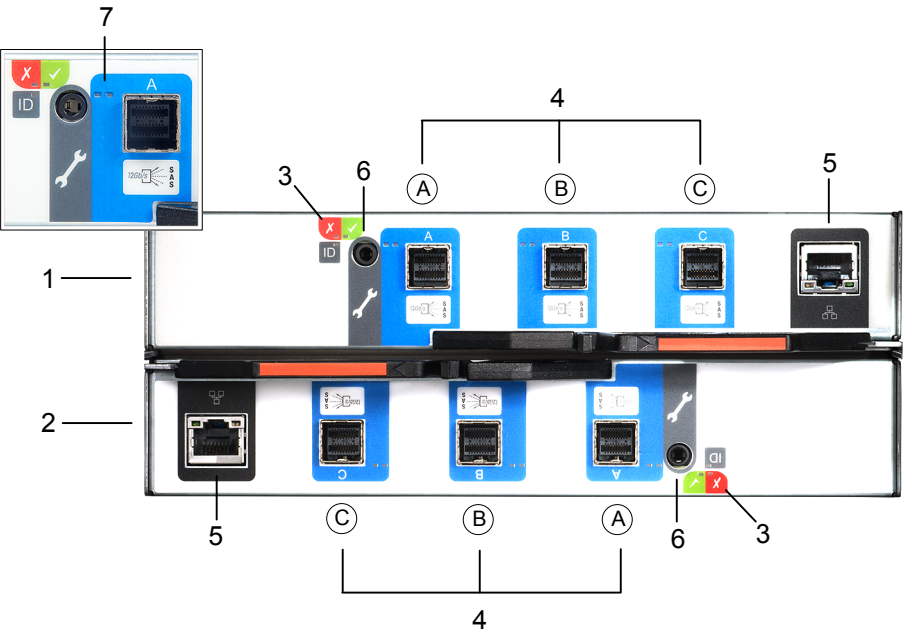


Table 2-7 Cohesity 2U12 Storage Shelf I/O module components

Number	Description
1	I/O module 0
2	I/O module 1
3	I/O module Status LEDs See “I/O module Status LED location and conditions” on page 34.
4	mini-SAS HD ports - A, B, and C
5	Ethernet port (debugging purposes only)
6	RS232 jack (debugging purposes only)
7	SAS Activity LEDs See “I/O module SAS Activity LED location and conditions” on page 34.

I/O module Status LED location and conditions

This section discusses the location of the Status LEDs on the I/O module and the Status LED conditions.

Figure 2-7 I/O module Status indicator LED location

I/O module Status LED location

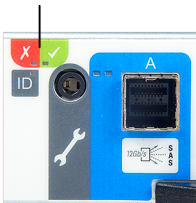


Table 2-8 I/O module Status LED conditions

Condition	Activity LED (green)	Fault LED (amber)
Module Fault (amber)	On	The I/O module has encountered a fault condition.
	Off	The I/O module is operating normally.
Power (green)	On	The I/O module is on.
	Off	The I/O module is off.
ID (blue)	On	The I/O module controller is being identified.

I/O module SAS Activity LED location and conditions

This section discusses the location of the SAS Activity LEDs on the I/O module and the SAS Activity LED conditions.

Figure 2-8 I/O module SAS Activity LED location

SAS Activity LED location

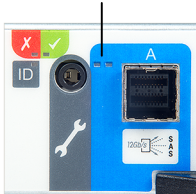


Table 2-9 I/O module SAS Activity LED conditions

Condition	Activity LED (green)	Fault LED (amber)
No Cable Present	Off	Off
Cable Present All links up, no activity.	On	Off
Cable Present All links up.	Flash with aggregate port activity	Off
Critical Fault Any fault which causes operation of the cable to cease or fail to start. For example, an OVERCURRENT trip.	Off	On
Non-Critical Fault Any fault which does not cause the connection to cease operation. For example, not all links established; OVERTEMPERATURE condition detected.	Flash with aggregate port activity	Flashing - One second on; one second off

Storage Shelf Power Cooling Modules

The Cohesity 2U12 Storage Shelf includes two Power Cooling Modules (PCM). The dual PCMs provide redundant power to the storage shelf. If one PCM fails, the storage shelf continues to operate as the second PCM continues to supply the storage shelf with power.

Figure 2-9 Power Cooling Module

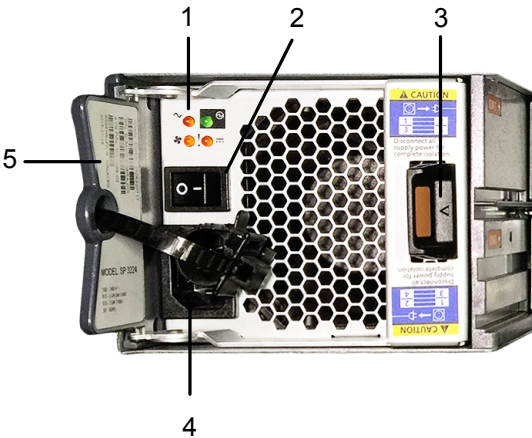


Table 2-10 Power Cooling Module components

Number	Component
1	Power Cooling Module LEDs See “Power Cooling Module LEDs” on page 37.
2	On/Off switch
3	Release tab
4	AC power socket

Table 2-10 Power Cooling Module components *(continued)*

Number	Component
5	Serial number - located on the Power Cooling Module 0 tab Note: The storage shelf serial number begins with the letters SH . 

Power Cooling Module LEDs

The Power Cooling Modules (PCM) use four LEDs to indicate the status of the PCM.

Figure 2-10 Power Cooling Module LEDs

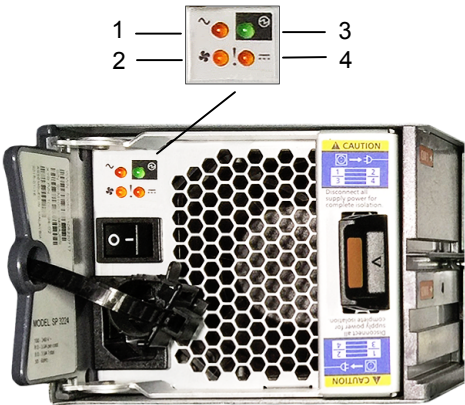


Table 2-11 Power Cooling Module LED legend

Number	LED condition
1	AC fail
2	Fan fail
3	Power Cooling Module OK
4	DC fail

Table 2-12 Power Cooling Module LED conditions

Status	Power Cooling Module OK (Green)	Fan Fail (Amber)	AC Fail (Amber)	DC Fail (Amber)
No AC Power (any Power Cooling Module)	Off	Off	Off	Off
No AC Power (this Power Cooling Module only)	Off	Off	On	On
AC Present (Power Cooling Module On OK)	On	Off	Off	Off
Power Cooling Module fan out of tolerance	On	Off	Off	On
Power Cooling Module fan fail	Off	On	Off	Off
Power Cooling Module Fault (Over temp, over volts, over current)	Off	On	On	On
Standby Mode	Flashing	Off	Off	Off
Power Cooling Module firmware download	Off	Flashing	Flashing	Flashing

See [“Storage Shelf Power Cooling Modules”](#) on page 35.

5270 Appliance and 2U12 Storage Shelf cables

This chapter includes the following topics:

- [Power cables](#)
- [Network cable](#)
- [Multi-Mode fiber optic cable](#)
- [Twinaxial copper cables](#)
- [SAS-3 cable](#)

Power cables

Each of the AC power modules in the Cohesity 5270 Appliance and in the optional Storage Shelf accept one AC power cable. One end of the AC power cable is connected to the power supply on the appliance or the storage device. The other end of the cable is connected to an external Power Distribution Unit (PDU) on the rack.

Power cables include a live line, a neutral line, and a grounding line.

Figure 3-1 AC power cable



- A AC power connector (IEC-60320-C14) to an external power supply Power Distribution Unit (PDU) on a rack.
- B AC power connector (IEC-60320-C13) to an appliance or a storage device.

Note: If your power distribution unit is not compatible with the IEC-60320-C14 plug, then Cohesity recommends that you purchase your power cable locally. Make sure the power cable meets or exceeds the indicated power rating.

See [“Multi-Mode fiber optic cable”](#) on page 41.

See [“SAS-3 cable”](#) on page 44.

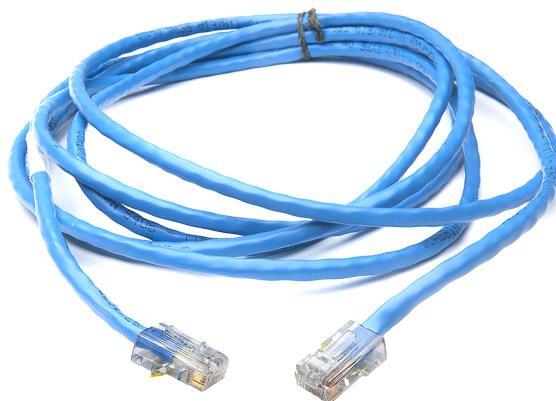
See [“Twinaxial copper cables”](#) on page 43.

See [“Network cable”](#) on page 40.

Network cable

The appliance communicates with the Ethernet networks through an Ethernet network cable. One end of the network cable connects to the management network port or service network port of the appliance. The other end of the cable connects to the network switch or an external gateway. Both ends of the cable are RJ45 connectors.

Figure 3-2 Network cable



See [“Power cables”](#) on page 39.

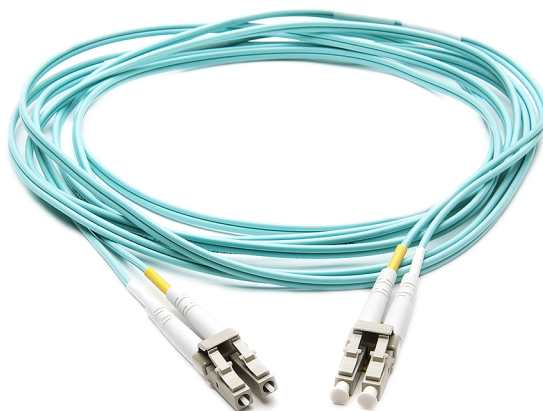
See [“Multi-Mode fiber optic cable”](#) on page 41.

See [“SAS-3 cable”](#) on page 44.

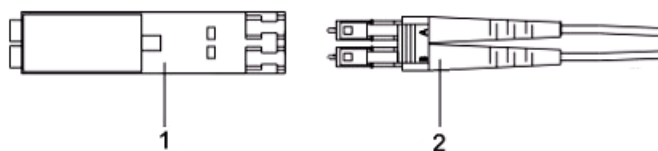
See [“Twinaxial copper cables”](#) on page 43.

Multi-Mode fiber optic cable

The Cohesity appliance communicates with the Fibre Channel switch through a multi-mode fiber optic cable. One end of the multi-mode fiber optic cable connects to the 10GbE service network port or the Fibre Channel port. The other end of the cable connects to the Fibre Channel switch or other devices. The two ends of the multi-mode fiber optic cable are LC connectors.

Figure 3-3 Multi-Mode fiber cable

Fiber optic cables require Small Form-factor Pluggable (SFP+) transceivers, which are provided with each device having Fibre Channel ports. The diagram shows the SFP, labeled 1, and the fiber optic cable which is attached to it, labeled 2.



Supported SFPs are listed:

- Finisar
- JDSU

Note: Cohesity recommends that you use Finisar FTLX8574D3BCV SFP part for 10G connectivity and Finisar FTLF8536P5PCV SFP part for 25G connectivity.

Note:

See [“Power cables”](#) on page 39.

See [“SAS-3 cable”](#) on page 44.

See [“Twinaxial copper cables”](#) on page 43.

See [“Network cable”](#) on page 40.

Twinaxial copper cables

The Cohesity 5270 Appliance communicates with Ethernet networks through high speed Twinaxial copper cables. If you configure the appliance to communicate with 10/25 Gb Ethernet networks, these cables connect to the 10/25Gb NIC card in the appliance.

These cables are also known as Direct-Access Copper (DAC) cables, and are available in 1-meter, 3-meter, or 5-meter lengths.



See [“Power cables”](#) on page 39.

See [“Multi-Mode fiber optic cable”](#) on page 41.

See [“SAS-3 cable”](#) on page 44.

See [“Network cable”](#) on page 40.

SAS-3 cable

SAS-3 data cables are used to connect the optional Cohesity 2U12 Storage Shelf to the Cohesity 5270 Appliance. SAS-3 cables have a mini-SAS HD connector on both ends.

Two 1m SAS-3 cables are shipped with each Cohesity 2U12 Storage Shelf. Longer SAS-3 cables are supported with the 2U12 Storage Shelf if needed for the configuration.

Two 1m SAS-3 cables are shipped with each S Series Storage Shelf. For the D Series Storage Shelves, a 2 meter cable is standard. Longer SAS-3 cables are supported with the 2U12 Storage Shelf if needed for the configuration.

Figure 3-4 SAS-3 cable



See [“Power cables”](#) on page 39.

See [“Multi-Mode fiber optic cable”](#) on page 41.

See [“Twinaxial copper cables”](#) on page 43.

See [“Network cable”](#) on page 40.

Technical specifications, Environmental/Protocol standards, and Compliance standards

This appendix includes the following topics:

- [Cohesity 5270 Appliance technical specifications](#)
- [2U12 Storage Shelf technical specifications](#)
- [Environmental specifications](#)
- [Protocol standards](#)
- [Regulatory, compliance, and certification information](#)
- [Product regulatory compliance](#)
- [Country approvals](#)
- [Product safety compliance](#)
- [Product EMC Compliance - Class A Compliance](#)
- [Product environmental compliance](#)

Cohesity 5270 Appliance technical specifications

The following table provides technical specifications for the Cohesity 5270 Appliance.

Table A-1 5270 Appliance technical specifications

Technical Specification	Cohesity 5270 Appliance
Rack information	19" EIA standard The compute node rails are extensible to 813.7mm (32in). The minimum distance or depth allowed between the rack posts is 708.7mm (27.9"). The maximum distance or depth allowed between the rack posts is 1153.2mm (45.4"). Note: The minimum rack depth is 1000 mm with standard rails and 900 mm with short rails. For more information on rack installation, refer to the Determining rack locations section in the <i>Cohesity 5270 Appliance Hardware Installation Guide</i>.
Processor	Intel Xeon Scalable Fifth generation Silver 4514Y
CPU speed	2.0 GHz
Cores	32 (16 per processor)
System memory (currently supported)	64GB 256GB 512GB 768GB Note: When you purchase the first storage expansion shelf, it includes both the storage expansion shelf and 256GB of memory that replaces the existing 64GB. In addition, when purchasing the fifth expansion shelf, 256GB of memory is also included with the storage shelf.
Memory type and configuration (DIMMs)	DDR4 RDIMM 4 x 16GB (64GB) 8 x 32GB (256GB) 16 x 32GB (512GB) 12 x 64GB (768 GB)
SAS RAID card installed in a PCIe riser assembly (Y/N)	PCIe RAID card: Yes
RAID cache	8 GB is also included on the external PCIe RAID controller

Table A-1 5270 Appliance technical specifications (*continued*)

Technical Specification	Cohesity 5270 Appliance
Usable MSDP and AdvancedDisk storage capacity (TiB)	Appliance: 9.1TiB, 36.4TiB Each storage shelf: 65.5TiB Maximum configuration shipped from the factory: 429.4TiB
Maximum number of storage shelves	6
10 Gb Ethernet ports	Up to 4 maximum
10/25 Gb Ethernet ports	Up to 8 maximum
32 Gb Fibre Channel ports	Up to 8 maximum
Dimensions (IEC rack compliant)	Height: 88mm (3.46") (approximately 2U) Width: 483mm (19") Depth: 797mm (31.37")
Maximum weight	34 kg (74 lbs)
AC power requirements	110 VAC at 12.0 A 220 VAC at 7.0 A
AC power cable	Specification: IEC-60320-C14 to IEC-60320-C13, 10A/250V, Black, 4 ft The IEC-60320-C14 plugs into a Power Distribution Unit. The IEC-60320-C13 plugs into an appliance or storage shelf power supply. Note: If your power distribution unit is not compatible with the IEC-60320-C14 plug, then Cohesity recommends that you purchase your power cable locally. Make sure the power cable meets or exceed the indicated power rating. See "Power cables" on page 39.
AC Frequency range	50/60Hz
Typical power consumption	440 watts Note: Typical power consumption is dependent on customer workload and environment over time. Value is only for reference.

Table A-1 5270 Appliance technical specifications (*continued*)

Technical Specification	Cohesity 5270 Appliance
Typical power consumption with a maximum of six connected external storage shelves	1,976 watts Note: Typical power consumption is dependent on customer workload and environment over time. Value is only for reference.
Maximum power consumption	1200 watts Note: Maximum power consumption is theoretical maximum of the device limited by the power supplies.
Maximum power consumption with a maximum of six connected external storage shelves	4,680 watts Note: Maximum power consumption is theoretical maximum of the device limited by the power supplies.
System cooling requirement (heat dissipation)	1501 BTU/hr (Typical) 4095 BTU/hr (Maximum)
System cooling requirement with maximum external storage (heat dissipation)	6742 BTU/hr (Typical) 15968 BTU/hr (Maximum)
Operating voltage	90V – 140 VAC 180V – 264 VAC
Power conversion efficiency	90% +
Acoustic noise	76 dBA Prominent Tones < 17dB

See [“2U12 Storage Shelf technical specifications”](#) on page 48.

See [“Environmental specifications”](#) on page 50.

2U12 Storage Shelf technical specifications

The following table provides technical specifications for a 2U12 Storage Shelf.

Table A-2 2U12 Storage Shelf technical specifications

Technical specification	Description
Rack information	The rack installation height is the space occupied by a storage shelf in a rack cabinet. The height for the storage shelf is 3.5 inches, 88.9mm. The shelf fits into a 2U rack space. Install the storage shelf in a rack cabinet that is 19 inches (483mm) wide. The rack rails that are provided for the storage shelf are extensible to 32" (813mm). This distance is the maximum depth that is allowed between rack posts. If the distance between rack posts is longer than 32" (813mm) the rails and the appliance cannot be properly installed.
Hot swappable components	Disk drives, power cooling modules, and I/O modules (Storage Bay Bridge (SBB) 2.1)
Usable storage capacity (TB)	65.5TiB/72TB
Maximum weight (fully populated)	32kg (70.5 lbs)
Shipping weight	52 kg (115 lbs)
Dimensions	Height: 88.9mm (3.5") (approximately 2U) Width: 483mm (19") ICE rack compliant Depth: 630mm (24.8")
Device types supported	Dual ported 12Gb/s SAS drives
Maximum drives per enclosure	12
AC power requirements	110 VAC at 5.2 A 220 VAC at 2.6 A
Typical power consumption	256 watts per storage shelf You can connect a maximum of six storage shelves to the Cohesity 5270 Appliance.
Maximum power consumption	580 watts per storage shelf You can connect a maximum of six storage shelves to the Cohesity 5270 Appliance.
System cooling requirement (heat dissipation)	873 BTU/hr (typical) 1979 BTU/hr (Maximum)

Table A-2 2U12 Storage Shelf technical specifications (*continued*)

Technical specification	Description
Operating voltage	100V - 127VAC 200V - 240VAC
AC Frequency range	50/60Hz
Power conversion efficiency	>80% @ 100V, >80% @240V (>30% load)
Acoustic noise	63 dBA
Non-operational altitude	-300 to 12,192 m (-1,000 to 40,000 ft)
Operational shock	2g 11mSec half sine
Non-operational shock	25g 10mSec half sine
Operational vibration	0.21g RMS 5-500Hz random
Non-operational vibration	1.04g RMS 2-200Hz random
Relocation vibration (Non-operational)	0.3g 2-200Hz sinusoidal

See “[Environmental specifications](#)” on page 50.

Environmental specifications

Appliance compute node environmental specifications

Table A-3 Appliance compute node environmental specifications

Specification	5270 Appliance compute node
Operating temperature	ASHRAE A2 (10°C to 35°C) (50°F to 95°F)
Non-operating temperature	-40 °C to 70 °C (-40 °F to 158 °F) The non-operating temperature is defined as the temperature of the system when the system is turned off. It is also referred to as the storage temperature. Cohesity recommends that you do not store the system in an environment where the temperatures fall outside of the listed temperature range.

Table A-3 Appliance compute node environmental specifications *(continued)*

Specification	5270 Appliance compute node
Operating humidity (RH)	8% RH to 85% RH non-condensing
Non-operating humidity	8% RH to 90% RH non-condensing
Operating altitude (feet)	3050 m (10,006 ft)
Temperature gradient (per hour)	10°C/h (50°F/h)

See [“2U12 Storage Shelf technical specifications”](#) on page 48.

See [“Protocol standards”](#) on page 51.

See [“Regulatory, compliance, and certification information”](#) on page 52.

Protocol standards

The following table provides standards with which the Cohesity 5270 Appliance and the 2U12 Storage Shelf comply.

Table A-4 Cohesity 5270 Appliance / 2U12 Storage Shelf standards compliance

Standard	Version
IPMI 2.0	Intelligent Platform Management Interface Specification Second Generation v2.0, Document Revision 1.0
SMBIOS	System Management BIOS (SMBIOS) Reference Specification, Version 3.5.0
SAS	SAS - 3.0
ACPI	Advanced Configuration and Power Interface Specification, Revision 6.3
IP	RFC0791: Internet Protocol
FC	INCITS T11 (X3T9.3)
PCIe Express	PCIe 5.0

See [“2U12 Storage Shelf technical specifications”](#) on page 48.

See [“Environmental specifications”](#) on page 50.

Regulatory, compliance, and certification information

The following sections give information about the product regulations and compliance.



WARNING

To ensure regulatory compliance, you must adhere to the assembly instructions in this guide to ensure and maintain compliance with existing product certifications and approvals. Use only the described, regulated components that are specified in this guide. Use of other products or components may void the regulatory approvals of the product. The result is noncompliance with product regulations in the region in which the product is sold.

Alterations to the configuration of your appliance may require additional compliance testing.

This product is an FCC Class A device. Integration of it into a Class B system does not result in a Class B device.

Product regulatory compliance

The appliance, when correctly integrated per this guide, complies with the following safety and electromagnetic compatibility (EMC) regulations.

Intended Application - This product was evaluated as Information Technology Equipment (ITE), which may be installed in offices, schools, computer rooms, and similar commercial type locations. The suitability of this product for other product categories and environments, other than an ITE application, may require further evaluation. Other product categories and environments may include medical, industrial, telecommunications, NEBS, residential, alarm systems, and test equipment.

Country approvals

- US/Canada
- CE - European Union (EU)
- Australia / New Zealand
- KCC South Korea
- IRAM Certification (Argentina)
- CCC Certification (China)
- BIS India
- NOM Mexico
- InMetro Brazil
- NRCS & SABS South Africa
- BSMI Taiwan
- VCCI Japan

Note: Other countries are either based on these requirements or do not require certification. For more regulatory compliance information please refer to this link: [Regulatory Compliance / Homologation](#)

Product safety compliance

The following is a list of product safety compliance norms for different countries:

- EN 62368-1:2014 + AC:2015
- EU Directive: Low Voltage 2014/35/EU
- CSA C22.2 No. 62368-1

Product EMC Compliance - Class A Compliance

The following is a list of EMC compliance norms for different countries:

- EU Directive: EMC 2014/30/EU
- EN 55032:2015 +A11:2020
- EN 61000-3-2:2014
- EN 61000-3-3:2013

- FCC /ICES-003 - Emissions (USA/Canada) Verification
- VCCI Emissions (Japan)
- AS/NZS 3548 Emissions (Australia / New Zealand)

Note: For a complete list of regulatory notices please refer to this link:

[Cohesity Safety and Compliance Guide](#)

Product environmental compliance

Use of banned substances are restricted in accordance with world-wide regulatory requirements. Restrictions include quantity limitations on the following:

- Quantity limit of 0.1% by mass (1000 PPM) for: Lead, Mercury, Cadmium, Hexavalent Chromium, Polybrominated Biphenyls Diphenyl-Ethers (PBB/PBDE), Bis (2-ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DiBP).
- Quantity limit of 0.01% by mass (100 PPM) for: Cadmium
- California Code of Regulations, Title 22, Division 4.5, Chapter 33: Best Management Practices for Perchlorate Materials
- China - Restriction of Hazardous Substances (China RoHS)
- India RoHS
- EU WEEE Directive
- EU Packaging Directive
- EU Batteries Directive
- EU Commission Regulation (EU) 2019/424 of 15 March 2019
- EU REACH Regulation

Product environmental declarations of compliance are available in this [link](#).