QSAN
Data Storage, Security & Performance
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XCubeDAS

| XD5300 Series



QSAN XCubeDAS XD5300 Series is a cost-effective DAS (Direct Attached Storage) or JBOD (Just a Bunch Of Disks) for server expansion. It is also a RAID expansion enclosure for QSAN SAN (Storage Area Network) XCubeSAN series.

Product Highlights

- Latest 12 Gb SAS 3.0 technology
- Full range product selections
- Flexible expansion
- Dual-Active controller and high availability design with no single point of failure
- 10 x 12 Gb/s SAS wide ports and total 480 Gb/s bandwidth
- Up to 24,000 MB/s sequential read and 22,000 MB/s sequential write throughput, up to 4.2 million sequential IOPS
- Versatile topologies, zoning, and runtime configuration
- Intuitive CubeView DAS central management software
- Complete HBA and RAID controller cards support
- Compatible with VMware vSAN and Microsoft Windows Server
- Green Technology

Windows Server 2016 Certified

Wide Ranging Product Portfolio

The XD5300 series features a wide range of form factors including a 24-bay, 2U 3.5" LFF chassis (XD5324 model), 3U 16-bay (XD5316 model), 2U 12-bay (XD5312 model), and a 26-bay, 2U 2.5" SFF chassis (XD5326 model). This allows more deployment flexibility to meet users' budgets and rack density limitations.



XD5324



XD5316



XD5312



XD5326

QSAN XD5326 model (2.5" 2U 26-bay) is the industry's first high density all flash / low power DAS storage. It has two more storage bays (around 8% more capacity) than the popular 2U 24-bay products available on the market. This can further lower the cost per TB, minimize IT rack space, and generate smaller and greener footprint.

Dual Active Controller & High Availability Design

The XCubeDAS XD5300 DAS system features a fully modularized, cable-less architecture. In addition to Dual-Active controllers, all critical components inside the unit such as power supply modules, fan modules, and hot pluggable to provide fault tolerance capabilities.

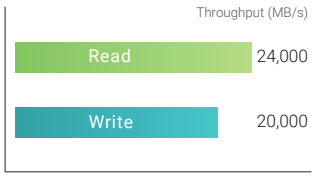
In case of any component failure, the system will notify the administrator immediately; an alarm will go off and the central management software will clearly indicate which component is at risk or has failed. The IT manager can then simply unplug the failed component and replace it without affecting uptime.



Fully Redundant Modular Design

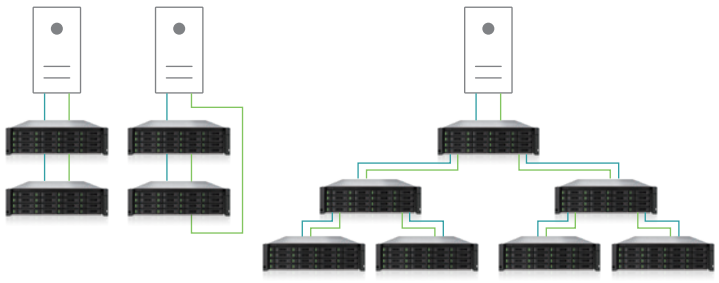
High Performance & High Throughput

The XD5300 solutions set a new storage standard for direct-attached storage. The series provides a smart and elastic runtime configuration of the 10 x 12 Gb/s SAS wide ports support, and allows IT managers fully utilizing the 480 Gb/s data bandwidth per system for various applications. The XD5300 series is fully tested with various configurations and can deliver up to 24,000 MB/s sequential read and 20,000 MB/s sequential write in throughput and over end-to-end 4.2 million sequential IOPS. It is ideal for video editing, high performance computing, cloud storage, streaming, broadcasting, virtualization, and datacenters.



Versatile Topologies

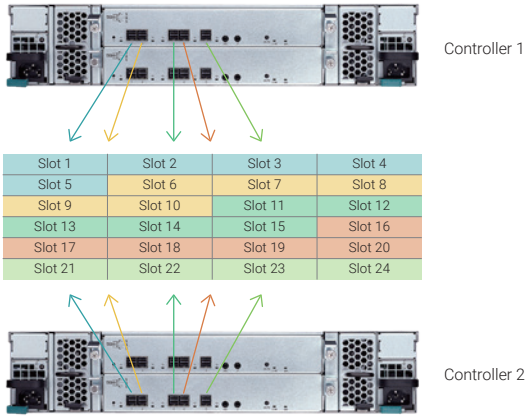
The XD5300 features all 12 Gb/s SAS topologies and permutations of all host and expansion port configurations. The XD5300 series supports all 12 Gb/s SAS topologies, including Cascade, Reverse, and Tree. The XD5300 series can be deployed freely to fit various connections to the host servers. With up to 10 x 12 Gb/s SAS ports support per system, this feature is crucial for users to plan a well-defined resource arrangement to achieve highly utilized performance and capacity of the XD5300 system.



Cascade Reverse Tree

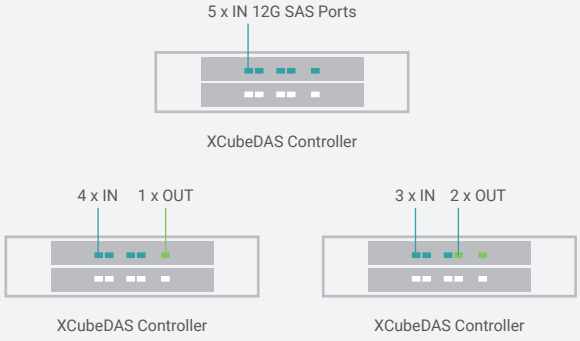
Zoning

User can select specific group of disk slots and define a zone for it. There can be up to 5 zones per system. Each zone can be assigned to at least 1 x 12 Gb/s SAS port. The zoning feature provides better security control even in the direct-attached system scenario. User can use different zones for multiple host servers that connect to the same DAS systems and still have different access control for different zones.



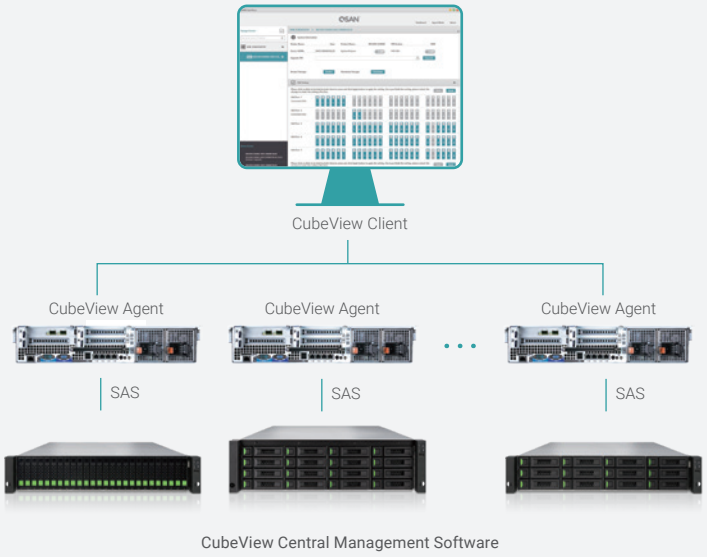
Runtime Configuration

The XD5300 controller's host and expansion ports can be configured and changed IN / OUT during runtime for different applications and environment requirements. The setting is effective immediately without rebooting the system. The 5 IN, 4 IN / 1 OUT or 3 IN / 2 OUT configurations displayed below are recommended for better performance utilization.



QSAN CubeView Central Management Software

The CubeView CMS (Central Management Software) can monitor and manage system log, disk drive status, enclosure, zoning function, firmware update, and history record of system temperature, voltage, and fan speed. The systems also support command line and S.E.S. that allows IT managers completely control of the storage systems and agile configuration of powerful management.



Interoperability & Wide Compatibility

QSAN XCubeDAS XD5300 series is fully compatible with all major 12 Gb/s SAS HBAs, RAID controller card, servers, and operating systems, including Windows Server Storage Spaces, SLES (SUSE Linux Enterprise Server), RHEL (Red Hat Enterprise Linux), FreeBSD, and macOS. The XD5300 series also accomplished completed test and met the requirements of VMware vSAN and Hyper-V virtualization environment storage expansion. In addition, QSAN has qualified the most popular HDDs and SSDs on the market. Our users have the highest level of flexibility to choose from the most advanced HDDs or SSDs and purchase the best cost/performance drives to suit their needs, significantly reducing IT infrastructure investment costs.

To learn more about XCubeDAS XD5300, please visit https://www.qsan.com

Hardware Specifications



Model Name	XD5324D (Dual) XD5324S (Single)	XD5316D (Dual) XD5316S (Single)	XD5312D (Dual) XD5312S (Single)	XD5326D (Dual) XD5326S (Single)
Form Factor	4U 24-bay, LFF	LFF 3U 16-bay	LFF 2U 12-bay	2U 26-bay, SFF
I/O Controller	Dual-active or Single-upgradable controller			
Host & Expansion Connectivity (per Controller)	5 x 12 Gb/s SAS wide ports (SFF-8644)			
Drive Type	Mix & match 3.5" & 2.5" SAS, NL-SAS, SATA[1] HDD 2.5" SAS, SATA[2] SSD			2.5" SAS, NL-SAS, SATA[2] HDD 2.5" SAS, SATA[2] SSD
HBAs & RAID Cards Support[3]	Broadcom (LSI) 12 Gb/s & 6 Gb/s SAS HBAs Broadcom (LSI) 12 Gb/s & 6 Gb/s SAS RAID Controller Cards ATTO 12 Gb/s & 6 Gb/s SAS HBAs ATTO 6 Gb/s SAS RAID Controller Cards			
OS Support	Windows Server 2016, 2019, 2022, 2025 SLES 11, 12, 15、RHEL 7, 8, 9 FreeBSD 12, 12, 14 macOS 13, 14, 15 VMware & Hyper-V			
Dimension (H x W x D)	19" Rackmount 170.3 x 438 x 515 mm	19" Rackmount 130.4 x 438 x 515 mm	19" Rackmount 88 x 438 x 515 mm	19" Rackmount 88 x 438 x 491 mm
Power Supply	770W / 850W (1+1) redundant 80 PLUS Platinum			
Fan Module	2 x hot pluggable / redundant fan modules			
Warranty	System : 3 years			
Regulatory	CE, FCC, BSMI, VCCI, KCC			
Temperature	Operating temperature : 0 to 40°C Shipping temperature : -10°C to 50°C			
Relative Humidity	Operating relative humidity : 20% to 80% non-condensing Non-operating relative humidity : 10% to 90%			

[1] 3.5" SATA drives only work with single controller systems.
[2] 2.5" SATA drives in dual controller systems require a 6 Gb MUX board.
[3] The HBAs and RAID controller cards also specify the maximum number of drive / device support. Broadcom (LSI) 12 Gb/s SAS HBA supports up to 1,024 drives / devices, Broadcom (LSI) 12 Gb/s SAS RAID controller card up to 240 drives / devices, and ATTO 12 Gb/s SAS HBA supports up to 2,048 drives.

Software

Easy Management
- Intuitive CubeView central management software
- S.E.S. support
- CLI (Command Line Interface) support

Host & Expansion Port Configuration
- Automatic configuration
- Recommended configuration
  - 5 IN
  - 4 IN 1 OUT
  - 3 IN 2 OUT

Typologies Support
- Cascade
- Reverse
- Tree

Security
- Zoning

Green & Energy Efficiency
- 80 PLUS Platinum power supply
- Wake-on-SAS to turn on or wake up the system only when necessary with QSAN XCubeSAN series

Host Operating Systems Support
- Windows Server 2016, 2019, 2022, 2025
- SLES 11, 12, 15
- RHEL 7, 8, 9
- FreeBSD 12, 12, 14
- macOS 13, 14, 15

Software-Defined Storage & Hyper-Converged Solution Support
- VMware vSAN
- Microsoft Windows Server Storage Spaces

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