

# Lenovo Storage D1224

Powerful storage JBOD/expansion unit: 2.5-inch



## High-Performance, High-Capacity DAS

The Lenovo Storage D1224 has the flexibility and capacity to handle many different types of workloads. You can start with one D1224 enclosure containing up to 24x 2.5-inch drives as a simple JBOD, and later daisy-chain up to 8 enclosures per SAS Chain (using multiple ports). One chain supports up to 192 drives.

Supported drives include 15,000, 10,000 and 7,200rpm HDDs, secure self-encrypting 10,000rpm SED HDDs, and high-performance/high-capacity SSDs for read-intensive workloads. The D1224 supports RAID-0, 1, 10, 5, 50, 6, and 60, using a variety of RAID HBAs. A single chain can contain a combination of HDDs and SSDs with multiple speeds and capacities. If 3.5-inch HDDs are required, D1212 expansion units may be included in the chain.

## Best Value for Storage Capacity

The D1224 is optimized for performance at an affordable price. 2.5-inch NL drives offer up to 48TB of “cold” or archive storage and 384TB per HBA in 8 enclosures. 10,000 and 15,000 rpm 12Gbps SAS drives offer the speed needed for many performance-intensive workloads, and SSDs provide the extreme throughput necessary for the most I/O-intensive jobs, along with high capacity.

The D1224 shares common parts with D1212 DAS enclosures, simplifying servicing and reducing spare parts on hand, helping to reduce costs further.

## Easy to Deploy and Highly Available

Simply cable-connect new units and they come online immediately (OS-dependent) with instant drive identification. Virtual machines can share these expansion chassis as well.

And because storage is useless when it's offline, the D1224 uses ruggedized components that are designed for 99.999 percent availability and NEBS3 compliance, along with hot-swap drives and HS/redundant power supplies for maximum uptime. Redundant I/O modules with failover completes the package.

## Why Lenovo

Lenovo is the leading provider of x86 systems for the data center. The portfolio includes rack, tower, blade, dense and converged systems, and supports enterprise class performance, reliability and security. Lenovo also offers a full range of networking, storage, software and solutions, and comprehensive services supporting business needs throughout the IT lifecycle.

Lenovo™

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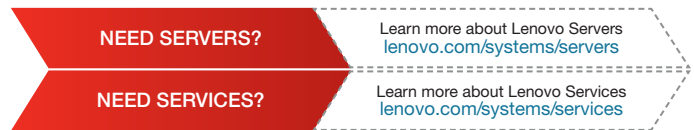
## Specifications

<b>Multi products</b>	Lenovo Storage D1224
<b>Form Factor</b>	2U
<b>Dual Expansion Modules</b>	Dual 12Gb SAS standard (MiniSAS-HD SFF 8644), with active/active failover
<b>Supported Drives</b>	24 hot-swap SAS 2.5-inch drives: 300GB and 600GB 15,000rpm HDDs; 600GB, 900GB, 1.2TB, and 1.8TB 10,000rpm HDDs; 1.2TB 10k SED HDDs; 1TB and 2TB 7,200rpm NL HDDs; 400GB, 800GB, and 1.6TB 3 DWD SSD; 400GB, 800GB, and 1.6TB 10 DWD SSDs*; 800GB SED SSDs*; 3.84TB and 7.68TB 1DWD SSDs*
<b>Storage Capacity</b> (per D1224 enclosure—up to 8 enclosures supported per SAS Chain)	Up to 14.4TB – 15,000rpm SAS HDDs; 43.2TB – 10,000rpm SAS HDDs; up to 28.88TB – 10,000rpm SAS SED HDDs; up to 48TB – 7,200rpm NL SAS HDDs; up to 184.32TB – SSDs; up to 19.2TB SED SSDs
<b>Expandability</b> (via Daisy-Chain)	Up to 8 D1224 units per SAS Chain
<b>HBA's Supported</b>	ThinkServer 8885e PCIe 12Gb SAS Adapter (PMC 8885E chipset); ThinkServer LSI 93008-e (12Gb; LSI SAS 31088); Lenovo N2225 SAS/SATA HBA (12Gb) Adapter for System x (12Gb; LSI SAS 3008); N2226 SAS/SATA HBA (12Gb) Adapter for System x (LSI SAS 3008); ServeRAID M5225-2GB SAS/SATA Controller for System x (LSI SAS 3108); Avago SAS 9300-8e Host Bus Adapter (12Gb; LSI SAS 3008); Avago SAS 9300-16e Host Bus Adapter (12Gb; LSI SAS 3008 x2); Avago SAS 9302-16e Host Bus Adapter (12Gb; LSI SAS 3008 x2); Avago MegaRAID SAS 9380-8e LSI SAS3108); Avago MegaRAID SAS 9380-4i4e LSI SAS3108)
<b>RAID Support</b>	RAID-0, 1, 10, 5, 50, 6, 60 (HBA-dependent)
<b>Power Supplies and Fans</b>	Two 580W (1+1) hot-swap/redundant 80 Plus Gold power supplies; two integrated fans per power supply
<b>Back Panel Connectors</b>	Each expansion module (x2) includes one Ethernet management port, 3x MiniSAS HD Connector (SFF 8644), It can be configured as in/ingress or out/egress port by SAS zoning mode setting
<b>Form Factor/Dimensions/Weight</b>	2U/Height: 89.9mm (3.5 in.); Width: 493mm (19 in.); Depth: 630mm (24.8 in.)/Weight: min. 16.8kg (37.0 lbs); max. 24kg (53lbs)
<b>Limited Warranty</b>	3- or 5-year limited warranty, 9x5 next business day (upgradeable), or 9x5x4, or 24/7x4.

\*Planned for 4Q/2016 availability.

## For More Information

To learn more about the Lenovo Storage D1224, contact your Lenovo representative or Business Partner or visit [lenovo.com/systems/storage](http://lenovo.com/systems/storage)



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