ThinkSystem M.2 Drives and M.2 Adapters
Product Guide

M.2 is a solid-state drive (SSD) form factor primarily used as an operating system boot solution however depending on the endurance of the M.2 drives, they may also be suitable for read-intensive or mixed workloads.

Lenovo ThinkSystem servers support M.2 drives in one of three ways, depending on the server selected:

- One or two drives, mounted in an M.2 adapter, vertically in a dedicated slot
- Two or four drives, mounted horizontally in an M.2 adapter
- Installed directly on the system board

One example is the Dual M.2 Adapter, as shown in the following figure, with one 128GB M.2 drive partially inserted. The second M.2 drive is installed on the other side of the adapter.

Figure 1. Dual M.2 Adapter and a 128 GB M.2 drive

Did you know?

Many of the M.2 adapters include a built-in RAID controller and allows two installed M.2 drives to be configured either as RAID-1, RAID-0, or two independent drives (JBOD mode).

The Dual M.2 Adapter features a Lenovo patented design that provides a tool-less method for attaching back-to-back M.2 modules to the adapter.

Part number information - Adapters

The following table lists the ThinkSystem part numbers for M.2 adapters and modules.

Table 1. M.2 adapters

Part number	Feature code	Description
M.2 adapters (ThinkSystem servers with Intel Xeon Scalable processors and ThinkSystem SE350)		
7Y37A01092	AUMU	ThinkSystem M.2 Enablement Kit (contains the Single M.2 Adapter; supports 1 drive)
7Y37A01093	AUMV	ThinkSystem M.2 with Mirroring Enablement Kit (contains the Dual M.2 Adapter, supports 1 or 2 drives with RAID)
4M17A60519	B88P	ThinkSystem SE350 M.2 Mirroring Enablement Kit (contains the Dual M.2 Adapter, supports 1 or 2 drives with RAID)
M.2 modules (AMD processor-based servers)		
4Y37A09739	B5XH	ThinkSystem M.2 SATA 2-Bay RAID Enablement Kit (supports 2 SATA drives with RAID)
4Y37A09750	B8P9	ThinkSystem M.2 NVMe 2-Bay RAID Enablement Kit (supports 2 NVMe drives with RAID)
4Y37A09738	B5XJ	ThinkSystem M.2 SATA/NVMe 2-Bay Enablement Kit (supports 2 SATA or 2 NVMe drives, no RAID)
M.2 adapter (SE350 only)		
4M17A37281	B6FF	ThinkSystem SE350 M.2 SATA/NVMe 4-bay Data Drive Enablement Kit (supports 4 SATA or 4 NVMe drives, no RAID)
4M17A37606	B6FG	ThinkSystem SE350 M.2 SATA 4-Bay Data RAID Mirroring Enablement Kit (supports 4 SATA drives with RAID)
M.2 thermal kit (some servers)		
4XH7A08791	B31F	ThinkSystem M.2 480GB SSD Thermal Kit (contains an air baffle required by some server configurations)

Part number information - Drives

The following table lists the ThinkSystem part numbers for M.2 drives.

Table 2. M.2 drives

Part number	Feature code	Description
SATA drives		
7N47A00129	AUUL	ThinkSystem M.2 32GB SATA 6Gbps Non-Hot-Swap SSD
7N47A00130	AUUV	ThinkSystem M.2 128GB SATA 6Gbps Non-Hot-Swap SSD
Micron 5300 SATA drives (non-SED)		
4XB7A17071	B8HS	ThinkSystem M.2 5300 240GB SATA 6Gbps Non-Hot Swap SSD
4XB7A17073	B919	ThinkSystem M.2 5300 480GB SATA 6Gbps Non-Hot Swap SSD
4XB7A17074	B8JJ	ThinkSystem M.2 5300 960GB SATA 6Gbps Non-Hot Swap SSD
4XB7A38180	BCNZ	ThinkSystem M.2 5300 1.92TB SATA 6Gbps Non-Hot Swap SSD
Micron 5100 SATA drives (non-SED)		
4XB7A14049	B5S4	ThinkSystem M.2 5100 240GB SATA 6Gbps Non-Hot Swap SSD
7SD7A05703	B11V	ThinkSystem M.2 5100 480GB SATA 6Gbps Non-Hot-Swap SSD
4XB7A14048	B5UP	ThinkSystem M.2 5100 960GB SATA 6Gbps Non-Hot Swap SSD
4XB7A39425	B75B	ThinkSystem M.2 1.92TB 5100 Pro SATA 6Gbps Non-Hot Swap SSD
Micron 5100 SATA SED drives (TCG-e encryption)		
4XB7A37273	B6FM	ThinkSystem M.2 480GB 5100 Pro SATA 6Gbps Non-Hot Swap SED SSD
4XB7A37274	B6FN	ThinkSystem M.2 960GB 5100 Pro SATA 6Gbps Non-Hot Swap SED SSD
4XB7A37275	B6FP	ThinkSystem M.2 1.92TB 5100 Pro SATA 6Gbps Non-Hot Swap SED SSD
ATP A600i Industrial SATA drives (non-SED)		
4XB7A39422	B758	ThinkSystem M.2 120GB Industrial A600i SATA SSD
4XB7A39423	B759	ThinkSystem M.2 480GB Industrial A600i SATA SSD
4XB7A39424	B75A	ThinkSystem M.2 800GB Industrial A600i SATA SSD
ATP A600i Industrial SATA SED drives (Opal encryption)		
4XB7A37270	B6FT	ThinkSystem M.2 120GB Industrial A600i SATA SED SSD
4XB7A37271	B6FK	ThinkSystem M.2 480GB Industrial A600i SATA SED SSD
4XB7A37272	B6FL	ThinkSystem M.2 800GB Industrial A600i SATA SED SSD
Intel P4511 NVMe SED drives (Opal encryption)		
4XB7A39426	B75C	ThinkSystem M.2 650GB P4511 NVMe SED High Endurance SSD
4XB7A39427	B75D	ThinkSystem M.2 1TB P4511 NVMe SED SSD
4XB7A39428	B75E	ThinkSystem M.2 2TB P4511 NVMe SED SSD
Samsung PM983 NVMe drives		
4XB7A38177	B8JR	ThinkSystem M.2 PM983 960GB NVMe PCIe 3.0 x4 Non-Hot Swap SSD

Implementation

Implementation of M.2 in ThinkSystem servers is one of four ways:

- On the SR150, SR250 and ST250, a single M.2 drive is installed directly on the system board.
- On 1st-Gen and 2nd-Gen Intel Xeon Scalable Processor-based servers, and on the SE350, the M.2 drives install into an M.2 adapter which in turn is installed in a dedicated slot in the server. With two M.2 drives configured, the drives are configured by default as a RAID-1 mirrored pair for redundancy.

There are two M.2 adapters supported:

The Single M.2 Adapter is shown in the following photo, with the 32GB M.2 drive installed.

Figure 2. Single M.2 Adapter and a 32 GB M.2 drive

- Single M.2 Adapter, which supports one M.2 drive; available as the ThinkSystem M.2 Enablement Kit
- Dual M.2 Adapter, which supports one or two M.2 drives; available as the ThinkSystem M.2 with Mirroring Enablement Kit. Includes a built-in RAID controller and allows two installed M.2 drives to be configured either as RAID-1, RAID-0, or two independent drives (JBOD mode).

- On the AMD processor-based servers, an M.2 module is mounted horizontally and is cabled to the system board. There are three M.2 modules offered:
  - SATA RAID M.2 Module, which supports two SATA M.2 drives and includes integrated RAID functionality; available as the ThinkSystem M.2 SATA 2-Bay RAID Enablement Kit
  - NVMe RAID M.2 Module, which supports two NVMe M.2 drives and includes integrated RAID functionality; available as the ThinkSystem M.2 NVMe 2-Bay RAID Enablement Kit
  - SATA/NVMe M.2 Module, which supports two SATA or two NVMe M.2 drives (no RAID); available as the ThinkSystem M.2 SATA/NVMe 2-Bay Enablement Kit

  The following figure shows the SATA/NVMe M.2 Module with two 128 GB M.2 drives installed. Note that the production M.2 Module has a green circuit board, not the red color as shown here.

Figure 3. SATA/NVMe M.2 Module with 2 drives

- On the ThinkSystem SE350 edge server, additional M.2 data drives are mounted on a 4-drive adapter that plugs into the PCIe riser. There are two M.2 modules offered:
  - ThinkSystem SE350 M.2 SATA/NVMe 4-bay Data Drive Enablement Kit, which supports four SATA or four NVMe M.2 drives without RAID support
  - ThinkSystem SE350 M.2 SATA 4-Bay Data RAID Mirroring Enablement Kit, which supports four SATA drives and supports RAID 0/1 functionality

  The following figure shows the ThinkSystem SE350 M.2 SATA/NVMe 4-bay Data Drive Enablement Kit installed in the PCIe riser.

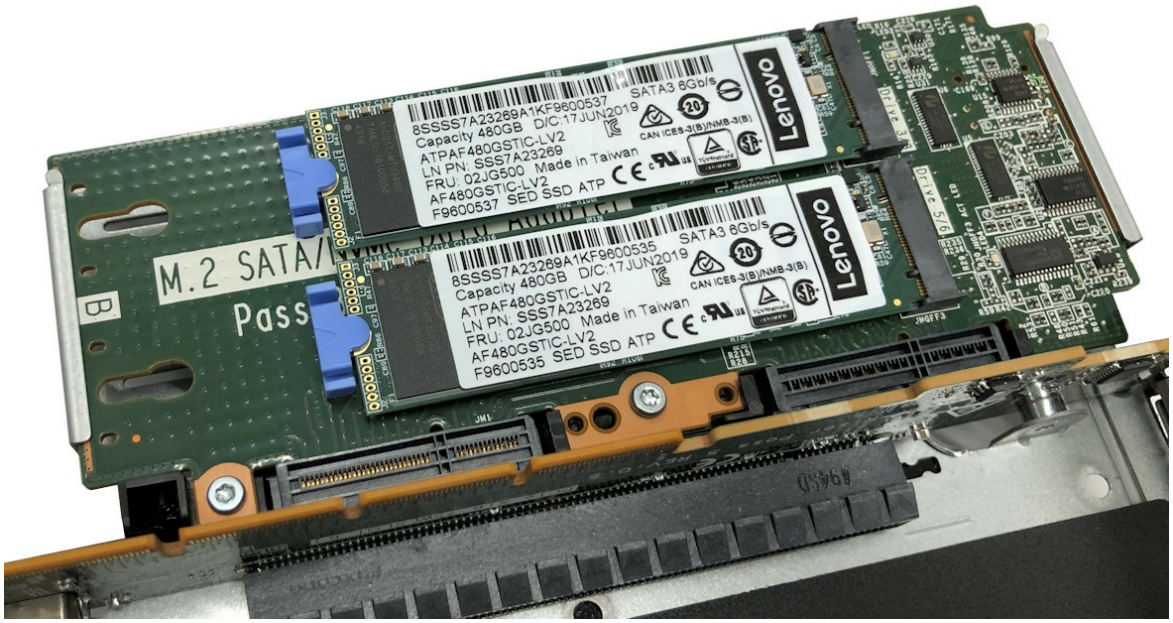

Figure 4. ThinkSystem SE350 M.2 SATA/NVMe 4-bay Data Drive Enablement Kit

Tip: The M.2 adapters and modules are also referred to as enablement kits. In the product publications, they are referred to as M.2 backplanes. These terms are interchangable.

Features

Features of the ThinkSystem M.2 solution:

- Hardened boot media that does not use a drive bay
- Both mechanically & electronically designed to be more robust than any prior implementation
- Design provides hardware mirroring of two M.2 SSDs
- M.2 SSDs have higher mean time between failures (MTBF) than SD cards or USB keys
- Tool-less clip design that supports back to back connector layout, providing simple install in limited space.
- When using configure-to-order (CTO), you can also select zero drives and add drives as a field upgrade.

Features of the Dual M.2 Adapter:

- PCIe 2.0 x2 host interface (connects to the PCH)
- Based on the Marvell 88SE9230 6 Gbps SATA controller
- Supports one or two 6 Gbps SATA M.2 drives
- Support 42mm, 60mm and 80mm drive form factors (2242, 2260 and 2280 respectively)
- RAID functionality provided by the M.2 adapter
- RAID 1 by default; also supports RAID 0 and JBOD
- UEFI-based settings to enable/disable RAID mode and to review inventory
- Supports Secure Boot
- Adapter and drive firmware update using Lenovo firmware tools
- Management via I2C interface

Features of the Single M.2 Adapter:

- 6 Gbps SATA host interface (connects to the PCH)
- Supports one 6 Gbps SATA M.2 drive
- Support 42mm, 60mm and 80mm drive form factors (2242, 2260 and 2280 respectively)
- Drive firmware update using Lenovo firmware tools
- Management via I2C interface
- VPD reporting of adapter inventory

The M.2 SATA 2-Bay RAID Enablement Kit for AMD servers has the following features:

- Supports zero or two SATA M.2 drives (one drive not supported)
- Support 42mm, 60mm, 80mm and 110mm drive form factors (2242, 2260, 2280 and 22110)
- RAID support via an onboard Marvell 88SE9230 SATA RAID Controller
- Support JBOD, RAID-0 and RAID-1 (RAID support requires two M.2 drives)
- PCIe 2.0 x2 host interface; 6Gbps SATA connection to the drives
- Management and configuration support via UEFI and OS-based tools
- Supports monitoring and reporting of events and temperature through I2C
- Firmware update via Lenovo firmware update tools

The M.2 NVMe 2-Bay RAID Enablement Kit for AMD servers has the following features:

- Supports zero or two NVMe M.2 drives (one drive not supported)
- Support 42mm, 60mm, 80mm and 110mm drive form factors (2242, 2260, 2280 and 22110)
- RAID support via an onboard Marvell 88NR2241 NVMe RAID Controller
- Support JBOD, RAID-0 and RAID-1 (RAID support requires two M.2 drives)
- PCIe 3.0 x2 host interface; PCIe 3.0 x1 connection to each drive
- Management and configuration support via UEFI and OS-based tools
- Supports monitoring and reporting of events and temperature through I2C
- Firmware update via Lenovo firmware update tools

The SATA/NVMe Enablement Kit for AMD servers has the following features:

- Supports one or two M.2 drives, either SATA or NVMe
- When two drives installed, they must be either both SATA or both NVMe
- Support 42mm, 60mm, 80mm and 110mm drive form factors (2242, 2260, 2280 and 22110)
- JBOD support only; no RAID support
- Either 6Gbps SATA or PCIe 3.0 x4 interface to the drives depending on the drives installed
- Supports monitoring and reporting of events and temperature through I2C
- Firmware update via Lenovo firmware update tools

The ThinkSystem SE350 M.2 SATA/NVMe 4-bay Data Drive Enablement Kit has the following features:

- Supports four SATA or four NVMe M.2 drives (no mixing of drive types)
- Support 42mm, 60mm, 80mm and 110mm drive form factors (2242, 2260, 2280 and 22110 respectively)
- For SATA drives, RAID 0, 1, 5, 10, provided by the PCH controller in the processor
- For NVMe, JBOD support only; no RAID support
- Either 6Gbps SATA or PCIe 3.0 x4 interface to the drives depending on the drives installed

The ThinkSystem SE350 M.2 SATA 4-Bay Data RAID Mirroring Enablement Kit has the following features:

- Supports four SATA M.2 drives (NVMe drives not supported)
- Support 42mm, 60mm, 80mm and 110mm drive form factors (2242, 2260, 2280 and 22110 respectively)
- RAID support via two independent Marvell 88SE9230 6 Gbps SATA controllers
- Each controller connects to two M.2 drives, offering RAID-0 or RAID-1

Tip: 2242, 2260, 2280 and 22110 are the industry terms for the M.2 drive dimensions. For example, 2280 corresponds to a drive that is 22mm wide and 80mm long.

Technical specifications of the drives

The following table compares the performance specifications of the M.2 drives.

For additional drive specifications plus the ability to easily compare the different drives, see the Lenovo ThinkSystem SSD Portfolio:
https://lenovopress.com/lp1261-lenovo-thinksystem-ssd-portfolio

Table 3. M.2 performance specifications

Part number	Description	Endurance DWPD	Endurance TBW	IOPS reads	IOPS writes	Sequential read rate	Sequential write rate	Read latency	Write latency
Lite-On									
7N47A00129	32GB SATA (CV1)	0.66 DWPD	37.92TB	25,000 IOPS	10,500 IOPS	260 MB/s	40 MB/s	N/A	N/A
7N47A00130	128GB SATA (CV8)	0.28 DWPD	63.9 TB	42,000 IOPS	2,300 IOPS	500 MB/s	140 MB/s	N/A	N/A
Micron 5300 (Non-SED)									
4XB7A17071	5300 240GB SATA	1.5 DWPD	657 TB	67,000 IOPS	40,000 IOPS	540 MB/s	310 MB/s	500 µs	500 µs
4XB7A17073	5300 480GB SATA	1.5 DWPD	1,324 TB	85,000 IOPS	36,000 IOPS	540 MB/s	410 MB/s	500 µs	500 µs
4XB7A17074	5300 960GB SATA	1.5 DWPD	2,628 TB	95,000 IOPS	35,000 IOPS	540 MB/s	520 MB/s	500 µs	600 µs
4XB7A38180	5300 1.92TB SATA	1.5 DWPD	5,256 TB	95,000 IOPS	30,000 IOPS	540 MB/s	520 MB/s	550 µs	700 µs
Micron 5100 (Non-SED)									
4XB7A14049	5100 240 GB SATA	1.5 DWPD	650 TB	78,000 IOPS	26,000 IOPS	540 MB/s	250 MB/s	500 µs	500 µs
7SD7A05703	5100 480GB SATA	1.5 DWPD	1,300 TB	93,000 IOPS	43,000 IOPS	540 MB/s	410 MB/s	500 µs	500 µs
4XB7A14048	5100 960GB SATA	2.5 DWPD	4,400 TB	93,000 IOPS	37,000 IOPS	540 MB/s	520 MB/s	500 µs	500 µs
4XB7A39425	1.92TB 5100 SATA	2.5 DWPD	8,800 TB	93,000 IOPS	37,000 IOPS	540 MB/s	520 MB/s	500 µs	500 µs
Micron 5100 SED (TCP-e Encryption)									
4XB7A37273	480GB 5100 SATA SED	1.5 DWPD	1,300 TB	93,000 IOPS	43,000 IOPS	540 MB/s	410 MB/s	500 µs	500 µs
4XB7A37274	960GB 5100 SATA SED	2.5 DWPD	4,400 TB	93,000 IOPS	37,000 IOPS	540 MB/s	520 MB/s	500 µs	500 µs
4XB7A37275	1.92TB 5100 SATA SED	2.5 DWPD	8,800 TB	93,000 IOPS	37,000 IOPS	540 MB/s	520 MB/s	500 µs	500 µs
ATP Industrial A600i (non-SED)									
4XB7A39422	120GB A600i SATA	0.2 DWPD	48 TB	45,000 IOPS	32,500 IOPS	560 MB/s	125 MB/s	N/A	N/A
4XB7A39423	480GB A600i SATA	0.4 DWPD	384 TB	100,200 IOPS	82,800 IOPS	560 MB/s	390 MB/s	N/A	N/A
4XB7A39424	800GB A600i SATA	0.5 DWPD	768 TB	97,400 IOPS	78,600 IOPS	560 MB/s	370 MB/s	N/A	N/A
ATP Industrial A600i SED (Opal Encryption)									
4XB7A37270	120GB A600i SATA SED	0.2 DWPD	48 TB	45,000 IOPS	32,500 IOPS	560 MB/s	125 MB/s	N/A	N/A
4XB7A37271	480GB A600i SATA SED	0.4 DWPD	384 TB	100,200 IOPS	82,800 IOPS	560 MB/s	390 MB/s	N/A	N/A
4XB7A37272	800GB A600i SATA SED	0.5 DWPD	768 TB	97,400 IOPS	78,600 IOPS	560 MB/s	370 MB/s	N/A	N/A

Part number	Description	Endurance DWPD	Endurance TBW	IOPS reads	IOPS writes	Sequential read rate	Sequential write rate	Read latency	Write latency
Intel P4511 SED (Opal Encryption)									
4XB7A39426	650GB P4511 NVMe SED	3.0 DWPD	3900 TB	295,000 IOPS	31,000 IOPS	2000 MB/s	1050 MB/s	85 µs	40 µs
4XB7A39427	1TB P4511 NVMe SED	0.5 DWPD	980 TB	295,000 IOPS	31,000 IOPS	2000 MB/s	1050 MB/s	85 µs	40 µs
4XB7A39428	2TB P4511 NVMe SED	0.5 DWPD	1950 TB	295,000 IOPS	36,000 IOPS	2000 MB/s	1050 MB/s	85 µs	40 µs

Server support - Adapters

Table 4. ThinkSystem server support (Part 1)

Part number	Description	Intel 2S								AMD			
		ST550 (7X09/7X10)	SR530 (7X07/7X08)	SR550 (7X03/7X04)	SR570 (7Y02/7Y03)	SR590 (7X98/7X99)	SR630 (7X01/7X02)	SR650 (7X05/7X06)	SR670 (7Y36/37/38)	SR635 (7Y98/7Y99)	SR655 (7Y00/7Z01)	SR645 (7D2Y/7D2X)	SR665 (7D2W/7D2V)
M.2 adapters and modules													
7Y37A01092	ThinkSystem M.2 Enablement Kit	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
7Y37A01093	ThinkSystem M.2 with Mirroring Enablement Kit	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
4M17A60519	ThinkSystem SE350 M.2 Mirroring Enablement Kit	N	N	N	N	N	N	N	N	N	N	N	N
4Y37A09739	ThinkSystem M.2 SATA 2-Bay RAID Enablement Kit	N	N	N	N	N	N	N	N	Y	Y	Y	Y
4Y37A09750	ThinkSystem M.2 NVMe 2-Bay RAID Enablement Kit	N	N	N	N	N	N	N	N	N	N	Y	Y
4Y37A09738	ThinkSystem M.2 SATA/NVMe 2-Bay Enablement Kit	N	N	N	N	N	N	N	N	Y	Y	Y	Y
4M17A37281	SE350 M.2 SATA/NVMe 4-bay Data Drive Enablement Kit	N	N	N	N	N	N	N	N	N	N	N	N
4M17A37606	SE350 M.2 SATA 4-Bay Data RAID Mirroring Enablement Kit	N	N	N	N	N	N	N	N	N	N	N	N
M.2 thermal kit													
4XH7A08791	ThinkSystem M.2 480GB SSD Thermal Kit	N	N	Y	N	Y	N	Y	N	N	N	N	N

Table 5. ThinkSystem server support (Part 2)

Part number	Description	E	1S Intel				4S Intel				Dense/ Blade			
		SE350 (7Z46/7D1X)	ST50 (7Y48/7Y50)	ST250 (7Y45/7Y46)	SR150 (7Y54)	SR250 (7Y51/7Y52)	SR850 (7X18/7X19)	SR850P (7D2F/2D2G)	SR860 (7X69/7X70)	SR950 (7X11/12/13)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
M.2 adapters and modules														
7Y37A01092	ThinkSystem M.2 Enablement Kit	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y†	Y
7Y37A01093	ThinkSystem M.2 with Mirroring Enablement Kit	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y
4M17A60519	ThinkSystem SE350 M.2 Mirroring Enablement Kit	Y	N	N	N	N	N	N	N	N	N	N	N	N
4Y37A09739	ThinkSystem M.2 SATA 2-Bay RAID Enablement Kit	N	N	N	N	N	N	N	N	N	N	N	N	N
4Y37A09750	ThinkSystem M.2 NVMe 2-Bay RAID Enablement Kit	N	N	N	N	N	N	N	N	N	N	N	N	N
4Y37A09738	ThinkSystem M.2 SATA/NVMe 2-Bay Enablement Kit	N	N	N	N	N	N	N	N	N	N	N	N	N
4M17A37281	SE350 M.2 SATA/NVMe 4-bay Data Drive Kit	Y	N	N	N	N	N	N	N	N	N	N	N	N
4M17A37606	SE350 M.2 SATA 4-Bay Data RAID Mirroring Kit	Y	N	N	N	N	N	N	N	N	N	N	N	N
M.2 thermal kit														
4XH7A08791	ThinkSystem M.2 480GB SSD Thermal Kit	N	N	N	N	N	N	N	N	N	N	N	N	N

† Support of the M.2 Enablement Kit (7Y37A01092) in the SN550 is configure-to-order only. It cannot be installed in the SN550 as a field upgrade option.

Server support - Drives

The following table lists the ThinkSystem part numbers for M.2 drives.

Table 6. ThinkSystem server support (Part 1)

		Intel 2S								AMD			
Part number	Description	ST550 (7X09/7X10)	SR530 (7X07/7X08)	SR550 (7X03/7X04)	SR570 (7Y02/7Y03)	SR590 (7X98/7X99)	SR630 (7X01/7X02)	SR650 (7X05/7X06)	SR670 (7Y36/37/38)	SR635 (7Y98/7Y99)	SR655 (7Y00/7Z01)	SR645 (7D2Y/7D2X)	SR665 (7D2W/7D2V)
SATA drives													
7N47A00129	ThinkSystem M.2 32GB SATA 6Gbps SSD	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
7N47A00130	ThinkSystem M.2 128GB SATA 6Gbps SSD	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Micron 5300 SATA drives (non-SED)													
4XB7A17071	ThinkSystem M.2 5300 240GB SATA 6Gbps SSD	Y	Y	Y‡	Y	Y‡	Y	Y‡	N	Y	Y	Y	Y
4XB7A17073	ThinkSystem M.2 5300 480GB SATA 6Gbps SSD	Y	Y	Y‡	Y	Y‡	Y	Y‡	N	Y	Y	Y	Y
4XB7A17074	ThinkSystem M.2 5300 960GB SATA 6Gbps SSD	N	N	N	N	N	N	N	N	Y	Y	Y	Y
4XB7A38180	ThinkSystem M.2 5300 1.92TB SATA 6Gbps SSD	N	N	N	N	N	N	N	N	N	N	N	N
Micron 5100 SATA drives (non-SED)													
4XB7A14049	ThinkSystem M.2 5100 240GB SATA 6Gbps SSD	Y	Y	Y‡	Y	Y‡	Y	Y‡	N	N	N	N	N
7SD7A05703	ThinkSystem M.2 5100 480GB SATA 6Gbps SSD	Y	Y	Y‡	Y	Y‡	Y	Y‡	N	Y	Y	N	N
4XB7A14048	ThinkSystem M.2 5100 960GB SATA 6Gbps SSD	N	N	N	N	N	N	N	N	Y	Y	N	N
4XB7A39425	ThinkSystem M.2 1.92TB 5100 Pro SATA 6Gbps SSD	N	N	N	N	N	N	N	N	N	N	N	N
Micron 5100 SATA SED drives (TCG-e encryption)													
4XB7A37273	ThinkSystem M.2 480GB 5100 Pro SATA 6Gbps SED SSD	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A37274	ThinkSystem M.2 960GB 5100 Pro SATA 6Gbps SED SSD	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A37275	ThinkSystem M.2 1.92TB 5100 Pro SATA 6Gbps SED SSD	N	N	N	N	N	N	N	N	N	N	N	N
ATP A600i Industrial SATA drives (non-SED)													
4XB7A39422	ThinkSystem M.2 120GB Industrial A600i SATA SSD	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A39423	ThinkSystem M.2 480GB Industrial A600i SATA SSD	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A39424	ThinkSystem M.2 800GB Industrial A600i SATA SSD	N	N	N	N	N	N	N	N	N	N	N	N
ATP A600i Industrial SATA SED drives (Opal encryption)													
4XB7A37270	ThinkSystem M.2 120GB Industrial A600i SATA SED SSD	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A37271	ThinkSystem M.2 480GB Industrial A600i SATA SED SSD	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A37272	ThinkSystem M.2 800GB Industrial A600i SATA SED SSD	N	N	N	N	N	N	N	N	N	N	N	N
Intel P4511 NVMe SED drives (Opal encryption)													
4XB7A39426	ThinkSystem M.2 650GB P4511 NVMe SED High Endurance SSD	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A39427	ThinkSystem M.2 1TB P4511 NVMe SED SSD	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A39428	ThinkSystem M.2 2TB P4511 NVMe SED SSD	N	N	N	N	N	N	N	N	N	N	N	N

Part number	Description	Intel 2S								AMD			
		ST550 (7X09/7X10)	SR530 (7X07/7X08)	SR550 (7X03/7X04)	SR570 (7Y02/7Y03)	SR590 (7X98/7X99)	SR630 (7X01/7X02)	SR650 (7X05/7X06)	SR670 (7Y36/37/38)	SR635 (7Y98/7Y99)	SR655 (7Y00/7Z01)	SR645 (7D2Y/7D2X)	SR665 (7D2W/7D2V)
Samsung PM983 NVMe drives													
4XB7A38177	ThinkSystem M.2 PM983 960GB NVMe PCIe 3.0 x4 SSD	N	N	N	N	N	N	N	N	N	N	Y	Y

‡ The use of a 5100 or 5300 M.2 drive in the SR550, SR590 and SR650 may require that the M.2 SSD Thermal Kit (4XH7A08791) also be installed. The thermal kit contains an air baffle that ensures proper cooling of the M.2 drive. See the SR550, SR590 and SR650 product guides for specifics.

Table 7. ThinkSystem server support (Part 2)

Part number	Description	E	1S Intel				4S Intel				Dense/ Blade			
		SE350 (7Z46/7D1X)	ST50 (7Y48/7Y50)	ST250 (7Y45/7Y46)	SR150 (7Y54)	SR250 (7Y51/7Y52)	SR850 (7X18/7X19)	SR850P (7D2F/2D2G)	SR860 (7X69/7X70)	SR950 (7X11/12/13)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
SATA drives														
7N47A00129	ThinkSystem M.2 32GB SATA 6Gbps SSD	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7N47A00130	ThinkSystem M.2 128GB SATA 6Gbps SSD	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Micron 5300 SATA drives (non-SED)														
4XB7A17071	ThinkSystem M.2 5300 240GB SATA 6Gbps SSD	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
4XB7A17073	ThinkSystem M.2 5300 480GB SATA 6Gbps SSD	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
4XB7A17074	ThinkSystem M.2 5300 960GB SATA 6Gbps SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A38180	ThinkSystem M.2 5300 1.92TB SATA 6Gbps SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
Micron 5100 SATA drives (non-SED)														
4XB7A14049	ThinkSystem M.2 5100 240GB SATA 6Gbps SSD	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7SD7A05703	ThinkSystem M.2 5100 480GB SATA 6Gbps SSD	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
4XB7A14048	ThinkSystem M.2 5100 960GB SATA 6Gbps SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A39425	ThinkSystem M.2 1.92TB 5100 Pro SATA 6Gbps SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
Micron 5100 SATA SED drives (TCG-e encryption)														
4XB7A37273	ThinkSystem M.2 480GB 5100 Pro SATA 6Gbps SED SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A37274	ThinkSystem M.2 960GB 5100 Pro SATA 6Gbps SED SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A37275	ThinkSystem M.2 1.92TB 5100 Pro SATA 6Gbps SED SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
ATP A600i Industrial SATA drives (non-SED)														
4XB7A39422	ThinkSystem M.2 120GB Industrial A600i SATA SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A39423	ThinkSystem M.2 480GB Industrial A600i SATA SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A39424	ThinkSystem M.2 800GB Industrial A600i SATA SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N

Part number	Description	E	1S Intel				4S Intel				Dense/ Blade			
		SE350 (7Z46/7D1X)	ST50 (7Y48/7Y50)	ST250 (7Y45/7Y46)	SR150 (7Y54)	SR250 (7Y51/7Y52)	SR850 (7X18/7X19)	SR850P (7D2F/2D2G)	SR860 (7X69/7X70)	SR950 (7X11/12/13)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
ATP A600i Industrial SATA SED drives (Opal encryption)														
4XB7A37270	ThinkSystem M.2 120GB Industrial A600i SATA SED SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A37271	ThinkSystem M.2 480GB Industrial A600i SATA SED SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A37272	ThinkSystem M.2 800GB Industrial A600i SATA SED SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
Intel P4511 NVMe SED drives (Opal encryption)														
4XB7A39426	ThinkSystem M.2 650GB P4511 NVMe SED High Endurance SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A39427	ThinkSystem M.2 1TB P4511 NVMe SED SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A39428	ThinkSystem M.2 2TB P4511 NVMe SED SSD	Y	N	N	N	N	N	N	N	N	N	N	N	N
Samsung PM983 NVMe drives														
4XB7A38177	ThinkSystem M.2 PM983 960GB NVMe PCIe 3.0 x4 SSD	N	N	N	N	N	N	N	N	N	N	N	N	N

Operating system support

The adapters support the following operating systems:

- ThinkSystem M.2 Enablement Kit, 7Y37A01092
- ThinkSystem M.2 with Mirroring Enablement Kit, 7Y37A01093
- ThinkSystem M.2 SATA 2-Bay RAID Enablement Kit, 4Y37A09739
- ThinkSystem SE350 M.2 SATA 4-Bay Data RAID Mirroring Enablement Kit, 4M17A37606

Tip: These tables are automatically generated based on data from Lenovo ServerProven. Other M.2 adapters are considered operating system independent.

Table 8. Operating system support for ThinkSystem M.2 Enablement Kit, 7Y37A01092 (Part 1 of 2)

Operating systems	SE350	SD530 (Gen 2)	SD650 (Gen 2)	SN550 (Gen 2)	SN850 (Gen 2)	SR530 (Gen 2)	SR550 (Gen 2)	SR570 (Gen 2)	SR590 (Gen 2)	SR630 (Gen 2)	SR650 (Gen 2)	SR670 (Gen 2)	SR850 (Gen 2)	SR850P	SR860 (Gen 2)	SR950 (Gen 2)	ST550 (Gen 2)
For OS support info. please refer to LeSI Best Recipe.	N	N	Y [1]	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2012 R2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2016	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Microsoft Windows Server 2019	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Microsoft Windows Server version 1709	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server version 1803	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6.10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6.9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.5	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N
Red Hat Enterprise Linux 7.6	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.7	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.8	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Red Hat Enterprise Linux 8.0	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.1	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Red Hat Enterprise Linux 8.2	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 11 SP4 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP2 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP3	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N
SUSE Linux Enterprise Server 12 SP3 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N
SUSE Linux Enterprise Server 12 SP4	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4 with Xen	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5 with Xen	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
SUSE Linux Enterprise Server 15	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y

Operating systems	SE350	SD530 (Gen 2)	SD650 (Gen 2)	SN550 (Gen 2)	SN850 (Gen 2)	SR530 (Gen 2)	SR550 (Gen 2)	SR570 (Gen 2)	SR590 (Gen 2)	SR630 (Gen 2)	SR650 (Gen 2)	SR670 (Gen 2)	SR850 (Gen 2)	SR850P	SR860 (Gen 2)	SR950 (Gen 2)	ST550 (Gen 2)
SUSE Linux Enterprise Server 15 SP1	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1 with Xen	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.0 U3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U2	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U3	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.7 U1	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y

[1] 1. This item is not a general stand-alone option for Lenovo ThinkSystem SD650 (Xeon SP Gen 2), M/T 7X58 (Xeon SP Gen 2). 2. For OS support matrix, pls refer to LeSI Best Recipe. 3. This item shall be installed/removed by Lenovo support rep only.

Table 9. Operating system support for ThinkSystem M.2 Enablement Kit, 7Y37A01092 (Part 2 of 2)

Operating systems	SD530 (Gen 1)	SD650 (Gen 1)	SN850 (Gen 1)	SR530 (Gen 1)	SR550 (Gen 1)	SR570 (Gen 1)	SR590 (Gen 1)	SR630 (Gen 1)	SR650 (Gen 1)	SR670 (Gen 1)	SR850 (Gen 1)	SR860 (Gen 1)	SR950 (Gen 1)	ST550 (Gen 1)
For OS support info. please refer to LeSI Best Recipe.	N	Y [1]	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2012 R2	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server 2016	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server 2019	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server version 1709	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server version 1803	Y	N	N	N	N	N	N	Y	Y	N	Y	Y	Y	N
Red Hat Enterprise Linux 6.10	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 6.9	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 7.3	Y	N	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
Red Hat Enterprise Linux 7.4	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 7.5	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.6	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.7	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.8	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.0	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Operating systems	SD530 (Gen 1)	SD650 (Gen 1)	SN850 (Gen 1)	SR530 (Gen 1)	SR550 (Gen 1)	SR570 (Gen 1)	SR590 (Gen 1)	SR630 (Gen 1)	SR650 (Gen 1)	SR670 (Gen 1)	SR850 (Gen 1)	SR860 (Gen 1)	SR950 (Gen 1)	ST550 (Gen 1)
SUSE Linux Enterprise Server 11 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP2	Y	N	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
SUSE Linux Enterprise Server 12 SP2 with Xen	Y	N	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
SUSE Linux Enterprise Server 12 SP3	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP3 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.0 U3	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5	Y	N	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U2	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U3	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

[1] 1. This item is not a general stand-alone option for Lenovo ThinkSystem SD650 (M/T 7X58). 2. For OS support matrix, pls refer to LeSI Best Recipe. 3. This Item shall be installed/removed by Lenovo support rep only.

Table 10. Operating system support for ThinkSystem M.2 with Mirroring Enablement Kit, 7Y37A01093 (Part 1 of 2)

Operating systems	SD530 (Gen 2)	SD650 (Gen 2)	SN550 (Gen 2)	SN850 (Gen 2)	SR530 (Gen 2)	SR550 (Gen 2)	SR570 (Gen 2)	SR590 (Gen 2)	SR630 (Gen 2)	SR650 (Gen 2)	SR670 (Gen 2)	SR850 (Gen 2)	SR850P	SR860 (Gen 2)	SR950 (Gen 2)	ST550 (Gen 2)
For OS support info. please refer to LeSI Best Recipe.	N	Y [1]	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2012 R2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2016	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Microsoft Windows Server 2019	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Microsoft Windows Server version 1709	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Operating systems	SD530 (Gen 2)	SD650 (Gen 2)	SN550 (Gen 2)	SN850 (Gen 2)	SR530 (Gen 2)	SR550 (Gen 2)	SR570 (Gen 2)	SR590 (Gen 2)	SR630 (Gen 2)	SR650 (Gen 2)	SR670 (Gen 2)	SR850 (Gen 2)	SR850P	SR860 (Gen 2)	SR950 (Gen 2)	ST550 (Gen 2)
Microsoft Windows Server version 1803	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6.10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6.9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.5	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N
Red Hat Enterprise Linux 7.6	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.7	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.8	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Red Hat Enterprise Linux 8.0	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Red Hat Enterprise Linux 8.2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 11 SP4 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP2 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP3	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N
SUSE Linux Enterprise Server 12 SP3 with Xen	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N
SUSE Linux Enterprise Server 12 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
SUSE Linux Enterprise Server 15	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.0 U3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U3	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.7 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y

[1] 1. This item is not a general stand-alone option for Lenovo ThinkSystem SD650 (Xeon SP Gen 2), M/T 7X58 (Xeon SP Gen 2). 2. For OS support matrix, pls refer to LeSI Best Recipe. 3. This item shall be installed/removed by Lenovo support rep only.

Table 11. Operating system support for ThinkSystem M.2 with Mirroring Enablement Kit, 7Y37A01093 (Part 2 of 2)

Operating systems	SD530 (Gen 1)	SD650 (Gen 1)	SN550 (Gen 1)	SN850 (Gen 1)	SR530 (Gen 1)	SR550 (Gen 1)	SR570 (Gen 1)	SR590 (Gen 1)	SR630 (Gen 1)	SR650 (Gen 1)	SR670 (Gen 1)	SR850 (Gen 1)	SR860 (Gen 1)	SR950 (Gen 1)	ST550 (Gen 1)
For OS support info. please refer to LeSI Best Recipe.	N	Y [1]	N	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2012 R2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server 2016	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server 2019	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server version 1709	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Microsoft Windows Server version 1803	Y	N	Y	N	N	N	N	N	Y	Y	N	Y	Y	Y	N
Red Hat Enterprise Linux 6.10	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 6.9	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 7.3	Y	N	Y	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
Red Hat Enterprise Linux 7.4	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Red Hat Enterprise Linux 7.5	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.6	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.7	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.8	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.0	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP2	Y	N	Y	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
SUSE Linux Enterprise Server 12 SP2 with Xen	Y	N	Y	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
SUSE Linux Enterprise Server 12 SP3	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP3 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP4 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.0 U3	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5	Y	N	Y	Y	Y	Y	N	N	Y	Y	N	Y	N	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U3	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y

Operating systems	SD530 (Gen 1)	SD650 (Gen 1)	SN550 (Gen 1)	SN850 (Gen 1)	SR530 (Gen 1)	SR550 (Gen 1)	SR570 (Gen 1)	SR590 (Gen 1)	SR630 (Gen 1)	SR650 (Gen 1)	SR670 (Gen 1)	SR850 (Gen 1)	SR860 (Gen 1)	SR950 (Gen 1)	ST550 (Gen 1)
VMware vSphere Hypervisor (ESXi) 6.7 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

[1] 1. This item is not a general stand-alone option for Lenovo ThinkSystem SD650 (M/T 7X58). 2. For OS support matrix, pls refer to LeSI Best Recipe. 3. This Item shall be installed/removed by Lenovo support rep only.

Table 12. Operating system support for ThinkSystem M.2 SATA 2-Bay RAID Enablement Kit, 4Y37A09739

Operating systems	SR635	SR655
Microsoft Windows Server 2016	Y	Y
Microsoft Windows Server 2019	Y	Y
Red Hat Enterprise Linux 8.1	Y	Y
Red Hat Enterprise Linux 8.2	Y	Y
SUSE Linux Enterprise Server 12 SP5	Y	Y
SUSE Linux Enterprise Server 12 SP5 with Xen	Y	Y
SUSE Linux Enterprise Server 15 SP1	Y	Y
SUSE Linux Enterprise Server 15 SP1 with Xen	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	Y	Y

Table 13. Operating system support for ThinkSystem SE350 M.2 SATA 4-Bay Data RAID Mirroring Enablement Kit, 4M17A37606

Operating systems	SE350
Microsoft Windows Server 2016	Y
Microsoft Windows Server 2019	Y
Red Hat Enterprise Linux 7.6	Y
SUSE Linux Enterprise Server 15	Y
SUSE Linux Enterprise Server 15 with Xen	Y
VMware vSphere Hypervisor (ESXi) 6.5 U2	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	Y

Warranty

The M.2 drives and M.2 adapters carry a one-year, customer-replaceable unit (CRU) limited warranty. When the drives and adapters are installed in a supported server, these drives assume the server's base warranty and any warranty upgrades.

Solid State Memory cells have an intrinsic, finite number of program/erase cycles that each cell can incur. As a result, each solid state device has a maximum amount of program/erase cycles to which it can be subjected. The warranty for Lenovo solid state drives (SSDs) is limited to drives that have not reached the maximum guaranteed number of program/erase cycles, as documented in the Official Published Specifications for the SSD product. A drive that reaches this limit may fail to operate.

Physical specifications

M.2 drives have the following dimensions and weight:

- 2242 form factor drives: 22 mm x 42 mm, 5 g
- 2280 form factor drives: 22 mm x 80 mm, 10 g

M.2 adapters have the following dimensions and weight:

- Single M.2 Adapter: 117 mm x 30 mm, 17 g
- Dual M.2 Adapter: 117 mm x 30 mm, 18 g

Related publications and links

For more information, see these resources:

- Human Factors Engineer Tim Meserth shows the Lenovo M.2 offering: https://www.youtube.com/watch?v=ibtMAHihTPw&list=PLLQcIfVNrqze7qYOrEMPsuHqs4JEHi0aG&index=5
- Lenovo ThinkSystem product publications: http://thinksystem.lenovofiles.com/help/index.jsp
  - Quick Start
  - Rack Installation Guide
  - Setup Guide
  - Hardware Maintenance Manual
  - Messages and Codes Reference
  - Memory Population Reference
- ServerProven hardware compatibility: http://www.lenovo.com/us/en/serverproven

Related product families

Product families related to this document are the following:

- Drives

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