5100 Enterprise Entry SATA SSDs
Product Guide (withdrawn product)

The 5100 Enterprise Entry SATA solid-state drives (SSDs) use Micron NAND flash memory technology with a SATA 6Gbps interface. They provide an affordable solution for read-intensive applications such as boot, web servers, lower data rate operational databases and analytics.

The 5100 Enterprise Entry SATA SSD is shown in the following figure.

Figure 1. 5100 Enterprise Entry SATA SSD

Did you know?

The 5100 Series of SATA SSDs is available from Lenovo in two levels of endurance. The Enterprise Entry SSDs covered in this product guide offer drive write endurance of between 0.5 and 0.9 total drive writes per day (DWPD) whereas the Enterprise Mainstream SSDs covered in LP0634 are more for mixed read/write workloads and offer write endurance of between 2.5 and 5.0 DWPD.

Rigorous testing of the 5100 Series SSDs by Lenovo through the ServerProven program assures a high degree of storage subsystem compatibility and reliability. Providing additional peace of mind, these drives are covered under Lenovo warranty.

Part number information

The following table lists the ThinkSystem part numbers.

Table 1. ThinkSystem ordering information

Part number	Feature	Description
2.5-inch hot-swap drives - ThinkSystem		
4XB7A08502	B10N	ThinkSystem 2.5" 5100 480GB Entry SATA 6Gb Hot Swap SSD
4XB7A08503	B10P	ThinkSystem 2.5" 5100 960GB Entry SATA 6Gb Hot Swap SSD
4XB7A08504	B10Q	ThinkSystem 2.5" 5100 1.92TB Entry SATA 6Gb Hot Swap SSD
4XB7A08505	B10R	ThinkSystem 2.5" 5100 3.84TB Entry SATA 6Gb Hot Swap SSD
3.5-inch hot-swap drives - ThinkSystem		
4XB7A08506	B10S	ThinkSystem 3.5" 5100 480GB Entry SATA 6Gb Hot Swap SSD
4XB7A08507	B10T	ThinkSystem 3.5" 5100 960GB Entry SATA 6Gb Hot Swap SSD
4XB7A08508	B10U	ThinkSystem 3.5" 5100 1.92TB Entry SATA 6Gb Hot Swap SSD
4XB7A08509	B10V	ThinkSystem 3.5" 5100 3.84TB Entry SATA 6Gb Hot Swap SSD

The following table lists the System x part numbers and feature codes.

Table 2. System x ordering information

Part number	Feature	Description
2.5-inch hot-swap drives - System x		
01KR496	AXGL	5100 480GB Enterprise Entry SATA G3HS 2.5" SSD
01KR501	AXGM	5100 960GB Enterprise Entry SATA G3HS 2.5" SSD
01KR506	AXGN	5100 1.92TB Enterprise Entry SATA G3HS 2.5" SSD
01KR511	AXGP	5100 3.84TB Enterprise Entry SATA G3HS 2.5" SSD
3.5-inch hot-swap drives - System x		
01KR516	AXGQ	5100 480GB Enterprise Entry SATA HS 3.5" SSD
01KR521	AXGR	5100 960GB Enterprise Entry SATA HS 3.5" SSD
01KR526	AXGS	5100 1.92TB Enterprise Entry SATA HS 3.5" SSD
01KR531	AXGT	5100 3.84TB Enterprise Entry SATA HS 3.5" SSD
2.5-inch non-hot-swap drives for NeXtScale		
01KR536	AXHK	5100 480GB Enterprise Entry SATA 2.5" SSD for NeXtScale
01KR541	AXHL	5100 960GB Enterprise Entry SATA 2.5" SSD for NeXtScale
01KR546	AXHM	5100 1.92TB Enterprise Entry SATA 2.5" SSD for NeXtScale
01KR551	AXHN	5100 3.84TB Enterprise Entry SATA 2.5" SSD for NeXtScale

The following table lists the ThinkServer part numbers.

Table 3. ThinkServer ordering information

Part number	Description
2.5-inch hot-swap drives - ThinkServer	

Part number	Description
4XB0K12441	LTS Gen 5 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD
4XB0K12442	LTS Gen 5 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD
4XB0K12443	LTS Gen 5 2.5" 1.92TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD
4XB0K12444	LTS Gen 5 2.5" 3.84TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD
3.5-inch hot-swap drives - ThinkServer	
4XB0N68491	LTS Gen 5 3.5" 480GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD
4XB0N68493	LTS Gen 5 3.5" 960GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD
4XB0N68495	LTS Gen 5 3.5" 1.92TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD
4XB0N68496	LTS Gen 5 3.5" 3.84TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD
3.5-inch non-hot-swap drives for TS150	
4XB0N68492	LTS TS150 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray
4XB0N68494	LTS TS150 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray
2.5-inch and 3.5-inch non-hot-swap drives for RS160	
4XB0N68497	LTS 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps SSD for RS-Series
4XB0N68498	LTS 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps SSD for RS-Series
4XB0N68499	LTS 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray for RS-Series
4XB0N68500	LTS 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray for RS-Series

Features

The 5100 Enterprise Entry SATA SSDs have the following features:

- Industry standard 2.5-inch or 3.5-inch form factors
- Innovative triple-level cell (TLC) 3D NAND technology
- Suitable for read-intensive workloads with an endurance of between 0.5 and 0.9 drive writes per day (DWPD) for 5 years
- 6 Gbps SATA host interface
- High reliability and enhanced ruggedness
- Absence of moving parts to reduce potential failure points in the server
- S.M.A.R.T. support
- Advanced Encrypting Standard (AES) 256-bit encryption

SSDs have a huge but finite number of program/erase (P/E) cycles, which affect how long they can perform write operations and thus their life expectancy. Enterprise Entry SSDs typically have a better cost per read IOPS ratio but lower endurance and performance compared to Enterprise Performance SSDs. SSD write endurance is typically measured by the number of program/erase cycles that the drive can incur over its lifetime, which is listed as total bytes written (TBW) in the device specification.

The TBW value that is assigned to a solid-state device is the total bytes of written data that a drive can be guaranteed to complete. Reaching this limit does not cause the drive to immediately fail; the TBW simply denotes the maximum number of writes that can be guaranteed. A solid-state device does *not* fail upon reaching the specified TBW. However, at some point after surpassing the TBW value (and based on manufacturing variance margins), the drive reaches the end-of-life point, at which time the drive goes into read-only mode. Because of such behavior, careful planning must be done to use SSDs in the application environments to ensure that the TBW of the drive is not exceeded before the required life expectancy.

For example, the 5100 1.92TB Enterprise Entry SATA SSD has an endurance of 3,200 TB of total bytes written (TBW). This means that for full operation over five years, write workload must be limited to no more than 1,753 GB of writes per day, which is equivalent to 0.9 full drive writes per day (DWPD). For the device to last three years, the drive write workload must be limited to no more than 2,922 GB of writes per day, which is equivalent to 1.5 full drive writes per day.

Technical specifications

The following table presents technical specifications for the 5100 Enterprise Entry SATA SSDs.

> **Tip**: Drives listed in this product guide are the Lenovo versions of the Micron 5100 ECO family of SSDs.

Table 4. Technical specifications

Feature	480 GB drive	960 GB drive	1.92 TB drive	3.84 TB drive
Interface	6 Gbps SATA	6 Gbps SATA	6 Gbps SATA	6 Gbps SATA
Capacity	480 GB	960 GB	1.92 TB	3.84 TB
Endurance (drive writes per day)	0.5 DWPD	0.5 DWPD	0.9 DWPD	0.9 DWPD
Endurance (total bytes written)	450 TB	900 TB	3200 TB	6400 TB
Data reliability	< 1 in 10^{17} bits read	< 1 in 10^{17} bits read	< 1 in 10^{17} bits read	< 1 in 10^{17} bits read
MTBF	2,000,000 hours	2,000,000 hours	2,000,000 hours	2,000,000 hours
IOPS reads (4 KB blocks)	93,000	93,000	93,000	93,000
IOPS writes (4 KB blocks)	31,000	28,000	24,000	18,000
Sequential read rate (128 KB blocks)	540 MBps	540 MBps	540 MBps	540 MBps
Sequential write rate (128 KB blocks)	380 MBps	520 MBps	520 MBps	520 MBps
Read latency (seq)	500 µs	500 µs	500 µs	500 µs
Write latency (seq)	500 µs	500 µs	500 µs	500 µs
Shock, non-operating	1,500 G (Max) at 0.5 ms	1,500 G (Max) at 0.5 ms	1,500 G (Max) at 0.5 ms	1,500 G (Max) at 0.5 ms
Vibration, non-operating	3.13 G_{RMS} (5-800 Hz)	3.13 G_{RMS} (5-800 Hz)	3.13 G_{RMS} (5-800 Hz)	3.13 G_{RMS} (5-800 Hz)
Typical power	4.5 W	5 W	5.5 W	6 W

Server support - ThinkSystem

The following table lists the ThinkSystem servers that are compatible.

Table 5. ThinkSystem server support

Description and part number	E	1S Intel				2S Intel								AMD		4S Intel			Dense/Blade			
	SE350 (7Z46 / 7D1X)	ST50 (7Y48/7Y50)	ST250 (7Y45/7Y46)	SR150 (7Y54)	SR250 (7Y51/7Y52)	ST550 (7X09/7X10)	SR530 (7X07/7X08)	SR550 (7X03/7X04)	SR570 (7Y02/7Y03)	SR590 (7X98/7X99)	SR630 (7X01/7X02)	SR650 (7X05/7X06)	SR670 (7Y36/7Y37/7Y38)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR850 (7X18/7X19)	SR860 (7X69/7X70)	SR950 (7X11/12/13)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
2.5-inch hot-swap drives - ThinkSystem																						
ThinkSystem 2.5" 5100 480GB Entry SATA 6Gb Hot Swap SSD, 4XB7A08502	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	Y
ThinkSystem 2.5" 5100 960GB Entry SATA 6Gb Hot Swap SSD, 4XB7A08503	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	Y
ThinkSystem 2.5" 5100 1.92TB Entry SATA 6Gb Hot Swap SSD, 4XB7A08504	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	Y
ThinkSystem 2.5" 5100 3.84TB Entry SATA 6Gb Hot Swap SSD, 4XB7A08505	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	Y
3.5-inch hot-swap drives - ThinkSystem																						
ThinkSystem 3.5" 5100 480GB Entry SATA 6Gb Hot Swap SSD, 4XB7A08506	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N
ThinkSystem 3.5" 5100 960GB Entry SATA 6Gb Hot Swap SSD, 4XB7A08507	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N
ThinkSystem 3.5" 5100 1.92TB Entry SATA 6Gb Hot Swap SSD, 4XB7A08508	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N
ThinkSystem 3.5" 5100 3.84TB Entry SATA 6Gb Hot Swap SSD, 4XB7A08509	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N

Server support - System x

The following tables list the System x servers that are compatible.

Support for System x and dense servers with Xeon E5/E7 v4 and E3 v5 processors

Table 6. Support for System x and dense servers with Xeon E5/E7 v4 and E3 v5 processors

Part number	Description	x3250 M6 (3943)	x3250 M6 (3633)	x3550 M5 (8869)	x3650 M5 (8871)	x3850 X6/x3950 X6 (6241, E7 v4)	nx360 M5 (5465, E5 v4)	sd350 (5493)	nx360 M5 WCT (5467, E5 v4)
01KR496	5100 480GB Enterprise Entry SATA G3HS 2.5" SSD	Y	Y	Y	Y	Y	Y	Y	N
01KR501	5100 960GB Enterprise Entry SATA G3HS 2.5" SSD	Y	Y	Y	Y	Y	Y	Y	N
01KR506	5100 1.92TB Enterprise Entry SATA G3HS 2.5" SSD	Y	Y	Y	Y	Y	Y	Y	N
01KR511	5100 3.84TB Enterprise Entry SATA G3HS 2.5" SSD	Y	Y	Y	Y	Y	Y	Y	N
01KR516	5100 480GB Enterprise Entry SATA HS 3.5" SSD	Y	Y	Y	Y	N	N	N	N
01KR521	5100 960GB Enterprise Entry SATA HS 3.5" SSD	Y	Y	Y	Y	N	N	N	N
01KR526	5100 1.92TB Enterprise Entry SATA HS 3.5" SSD	Y	Y	Y	Y	N	N	N	N
01KR531	5100 3.84TB Enterprise Entry SATA HS 3.5" SSD	Y	Y	Y	Y	N	N	N	N
01KR536	5100 480GB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	Y	N	Y
01KR541	5100 960GB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	Y	N	Y
01KR546	5100 1.92TB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	Y	N	Y
01KR551	5100 3.84TB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	Y	N	Y

Support for System x and dense servers with Xeon v3 processors

Table 7. Support for servers with Xeon v3 processors

Part number	Description	x3100 M5 (5457)	x3250 M5 (5458)	x3500 M5 (5464)	x3550 M5 (5463)	x3650 M5 (5462)	x3850 X6/x3950 X6 (6241, E7 v3)	nx360 M5 (5465)
01KR496	5100 480GB Enterprise Entry SATA G3HS 2.5" SSD	N	N	N	N	N	Y	Y
01KR501	5100 960GB Enterprise Entry SATA G3HS 2.5" SSD	N	N	N	N	N	Y	Y
01KR506	5100 1.92TB Enterprise Entry SATA G3HS 2.5" SSD	N	N	N	N	N	Y	Y
01KR511	5100 3.84TB Enterprise Entry SATA G3HS 2.5" SSD	N	N	N	N	N	Y	Y
01KR516	5100 480GB Enterprise Entry SATA HS 3.5" SSD	N	N	N	N	N	N	N
01KR521	5100 960GB Enterprise Entry SATA HS 3.5" SSD	N	N	N	N	N	N	N
01KR526	5100 1.92TB Enterprise Entry SATA HS 3.5" SSD	N	N	N	N	N	N	N
01KR531	5100 3.84TB Enterprise Entry SATA HS 3.5" SSD	N	N	N	N	N	N	N
01KR536	5100 480GB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	Y
01KR541	5100 960GB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	Y
01KR546	5100 1.92TB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	Y
01KR551	5100 3.84TB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	Y

Server support - ThinkServer

The following tables list the ThinkServer systems that are compatible.

Support for sd350: The drives supported with the sd350 are listed in Table 4.

The following tables list the ThinkServer systems that are compatible.

Support for ThinkServer Gen 5 servers with E5 v4 or E3 v5 processors

Table 8. Support for ThinkServer Generation 5 servers with E5 v4 or E3 v5 processors

Part number	Description	TS150 (E3 v5)	TS450 (E3 v5)	TS460 (E3 v5)	RS160 (E3 v5)	TD350 (E5 v4)	RD350 (E5 v4)	RD450 (E5 v4)	RD550 (E5 v4)	RD650 (E5 v4)
4XB0K12441	LTS Gen 5 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	Y	Y	N	Y	Y	Y	Y	Y
4XB0K12442	LTS Gen 5 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	Y	Y	N	Y	Y	Y	Y	Y
4XB0K12443	LTS Gen 5 2.5" 1.92TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	Y	Y	N	Y	Y	Y	Y	Y
4XB0K12444	LTS Gen 5 2.5" 3.84TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	Y	Y	N	Y	Y	Y	Y	Y
4XB0N68491	LTS Gen 5 3.5" 480GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	Y	Y	N	Y	Y	Y	Y	Y
4XB0N68493	LTS Gen 5 3.5" 960GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	Y	Y	N	Y	Y	Y	Y	Y
4XB0N68495	LTS Gen 5 3.5" 1.92TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	Y	Y	N	Y	Y	Y	Y	Y
4XB0N68496	LTS Gen 5 3.5" 3.84TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	Y	Y	N	Y	Y	Y	Y	Y
4XB0N68492	LTS TS150 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray	Y	N	N	N	N	N	N	N	N
4XB0N68494	LTS TS150 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray	Y	N	N	N	N	N	N	N	N
4XB0N68497	LTS 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps SSD for RS-Series	N	N	N	Y	N	N	N	N	N
4XB0N68498	LTS 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps SSD for RS-Series	N	N	N	Y	N	N	N	N	N
4XB0N68499	LTS 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray for RS-Series	N	N	N	Y	N	N	N	N	N
4XB0N68500	LTS 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray for RS-Series	N	N	N	Y	N	N	N	N	N

Support for ThinkServer Gen 5 servers with E5 v3 processors

Table 9. Support for ThinkServer Generation 5 servers with E5 v3 processors

Part number	Description	TD350 (E5 v3)	RD350 (E5 v3)	RD450 (E5 v3)	RD550 (E5 v3)	RD650 (E5 v3)	RQ750 (E5 v3)
4XB0K12441	LTS Gen 5 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12442	LTS Gen 5 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12443	LTS Gen 5 2.5" 1.92TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12444	LTS Gen 5 2.5" 3.84TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0N68491	LTS Gen 5 3.5" 480GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0N68493	LTS Gen 5 3.5" 960GB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0N68495	LTS Gen 5 3.5" 1.92TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0N68496	LTS Gen 5 3.5" 3.84TB 5100 Enterprise Entry SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0N68492	LTS TS150 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray	N	N	N	N	N	N
4XB0N68494	LTS TS150 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray	N	N	N	N	N	N
4XB0N68497	LTS 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps SSD for RS-Series	N	N	N	N	N	N
4XB0N68498	LTS 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps SSD for RS-Series	N	N	N	N	N	N
4XB0N68499	LTS 2.5" 480GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray for RS-Series	N	N	N	N	N	N
4XB0N68500	LTS 2.5" 960GB 5100 Enterprise Entry SATA 6Gbps SSD with 3.5" Tray for RS-Series	N	N	N	N	N	N

Server support - Flex System

The following table lists the compatibility information for Flex System servers.

> **Tip**: For the ThinkSystem SN550 and SN850, see the ThinkSystem table.

Table 10. Support for Flex System servers

Part number	Description	x240 (8737, E5-2600 v2)	x240 (7162)	x240 M5 (9532, v3)	x240 M5 (9532, v4)	x440 (7167)	x880/x480/x280 X6 (7903)	x280/x480/x880 X6 (7196)	Storage Expansion Node
01KR496	5100 480GB Enterprise Entry SATA G3HS 2.5" SSD	N	N	Y	Y	N	N	N	N
01KR501	5100 960GB Enterprise Entry SATA G3HS 2.5" SSD	N	N	Y	Y	N	N	N	N
01KR506	5100 1.92TB Enterprise Entry SATA G3HS 2.5" SSD	N	N	Y	Y	N	N	N	N
01KR511	5100 3.84TB Enterprise Entry SATA G3HS 2.5" SSD	N	N	Y	Y	N	N	N	N
01KR516	5100 480GB Enterprise Entry SATA HS 3.5" SSD	N	N	N	N	N	N	N	N
01KR521	5100 960GB Enterprise Entry SATA HS 3.5" SSD	N	N	N	N	N	N	N	N
01KR526	5100 1.92TB Enterprise Entry SATA HS 3.5" SSD	N	N	N	N	N	N	N	N
01KR531	5100 3.84TB Enterprise Entry SATA HS 3.5" SSD	N	N	N	N	N	N	N	N
01KR536	5100 480GB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	N	N
01KR541	5100 960GB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	N	N
01KR546	5100 1.92TB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	N	N
01KR551	5100 3.84TB Enterprise Entry SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	N	N

Operating system support

SSDs operate transparently to users, storage systems, applications, databases, and operating systems.

Operating system support is based on the controller used to connect to the drives. Consult the controller propduct guide for more information:

- RAID controllers: https://lenovopress.com/servers/options/raid
- SAS HBAs: https://lenovopress.com/servers/options/hba

Warranty

The 5100 Enterprise Entry SATA SSDs carry a one-year, customer-replaceable unit (CRU) limited warranty. When the SSDs are installed in a supported server, these drives assume the system'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 according to its Specifications.

Physical specifications

The drives have the following physical specifications (approximate, without the tray):

- Height: 7 mm (0.3 in.)
- Width: 70 mm (2.8 in.)
- Depth: 100 mm (4.0 in.)
- Weight: 70 g (2.5 oz)

Shipping dimensions and weight - 2.5-inch drives (approximate, including the tray):

- Height: 63 mm (2.5 in.)
- Width: 174 mm (6.9 in.)
- Depth: 133 mm (5.2 in.)
- Weight: 434 g (1.0 lb)

Shipping dimensions and weight - 3.5-inch drives (approximate, including the tray):

- Height: 95 mm (3.7 in.)
- Width: 257 mm (10.1 in.)
- Depth: 193 mm (7.6 in.)
- Weight: 484 g (1.1 lb)

Operating environment

The SSDs are supported in the following environment:

- Operating temperature: 0 to 70°C (32 to 158°F)
- Non-operating temperature: -40 to 85°C (-40 to 185°F)
- Relative humidity: 5 to 95% (non-condensing)

Agency approvals

The 5100 Enterprise Entry SATA SSDs conform to the following regulations:

- Micron Green Standard
- Built with sulfur resistant resistors
- CE (Europe): EN 55032 Class B, RoHS
- FCC: CFR Title 47, Part 15 Class B
- UL: UL-60950-1, 2nd Edition
- BSMI (Taiwan): approval to CNS 13438
- RCM (Australia, New Zealand): AS/NZS CISPR32 Class B
- KCC RRL (Korea): approval to KN 32 Class B, KN 35 Class B
- W.E.E.E.: Compliance with EU WEEE directive 2002/96/EC.
- TUV (Germany): approval to IEC60950/EN60950
- VCCI (Japan): 2015-04 Class B
- IC (Canada): CISPR32 Class B: Canadian ICES-003:2016

Related publications and links

For more information, see the following documents:

- Product Guide for 5100 Enterprise Mainstream SATA SSDs
  http://lenovopress.com/lp0634

- Lenovo ThinkSystem storage options product page
  https://lenovopress.com/lp0761-storage-options-for-thinksystem-servers

- Lenovo System x storage options product page
  https://www3.lenovo.com/us/en/data-center/servers/server-options/system-x-options/server-storage/c/system-x-storage

- Micron 5100 series product page
  https://www.micron.com/products/solid-state-storage/product-lines/5100

- ServerProven for SSDs
  http://www.lenovo.com/us/en/serverproven/xseries/storage/hssdmatrix.shtml

- Lenovo RAID Introduction
  https://lenovopress.com/lp0578-lenovo-raid-introduction

- Lenovo RAID Management Tools and Resources
  https://lenovopress.com/lp0579-lenovo-raid-management-tools-and-resources

- ServeRAID Adapter Quick Reference
  http://lenovopress.com/tips0054

Related product families

Product families related to this document are the following:

- Drives

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