

## 5100 Enterprise Mainstream SATA SSDs Product Guide (withdrawn product)

The 5100 Enterprise Mainstream SATA solid-state drives (SSDs) use Micron NAND flash memory technology with a SATA 6Gbps interface. They provide an affordable solution for mixed read/write applications such as excellent choice as cache in transactional application and high-speed storage for enterprise databases.

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



Figure 1. 5100 Enterprise Mainstream SATA SSD

### Did you know?

The 5100 Series of SATA SSDs is available from Lenovo in two levels of endurance. The Enterprise Mainstream SSDs covered in this product guide offer drive write endurance of between 2.5 and 5.0 total drive writes per day (DWPD) whereas the [Enterprise Entry SSDs](#) are more for read-intensive workloads and offer write endurance of under 1.0 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

**Withdrawn:** All 5100 Mainstream drives are now withdrawn from marketing

The following table lists the ThinkSystem part numbers.

Table 1. ThinkSystem ordering information

Part number	Feature	Description
2.5-inch hot-swap drives - ThinkSystem		
7SD7A05765	B10W	ThinkSystem 2.5" 5100 240GB Mainstream SATA 6Gb Hot Swap SSD
7SD7A05764	B10X	ThinkSystem 2.5" 5100 480GB Mainstream SATA 6Gb Hot Swap SSD
7SD7A05763	B10Y	ThinkSystem 2.5" 5100 960GB Mainstream SATA 6Gb Hot Swap SSD
7SD7A05762	B10Z	ThinkSystem 2.5" 5100 1.92TB Mainstream SATA 6Gb Hot Swap SSD
7SD7A05761	B110	ThinkSystem 2.5" 5100 3.84TB Mainstream SATA 6Gb Hot Swap SSD
3.5-inch hot-swap drives - ThinkSystem		
7SD7A05760	B111	ThinkSystem 3.5" 5100 240GB Mainstream SATA 6Gb Hot Swap SSD
7SD7A05759	B112	ThinkSystem 3.5" 5100 480GB Mainstream SATA 6Gb Hot Swap SSD
7SD7A05758	B113	ThinkSystem 3.5" 5100 960GB Mainstream SATA 6Gb Hot Swap SSD
7SD7A05757	B114	ThinkSystem 3.5" 5100 1.92TB Mainstream SATA 6Gb Hot Swap SSD
7SD7A05756	B115	ThinkSystem 3.5" 5100 3.84TB Mainstream SATA 6Gb Hot Swap SSD

The following table lists the System x part numbers and feature codes. These part numbers are also for NeXtScale and Flex System servers.

Table 2. System x ordering information

Part number	Feature	Description
2.5-inch hot-swap drives - System x		
01GV843	AXFV	5100 240GB Enterprise Mainstream SATA G3HS 2.5" SSD
01GV848	AXFW	5100 480GB Enterprise Mainstream SATA G3HS 2.5" SSD
01GV853	AXFX	5100 960GB Enterprise Mainstream SATA G3HS 2.5" SSD
01GV858	AXFY	5100 1.92TB Enterprise Mainstream SATA G3HS 2.5" SSD
01GV863	AXFZ	5100 3.84TB Enterprise Mainstream SATA G3HS 2.5" SSD
3.5-inch hot-swap drives - System x		
01GV868	AXG0	5100 240GB Enterprise Mainstream SATA HS 3.5" SSD
01GV873	AXG1	5100 480GB Enterprise Mainstream SATA HS 3.5" SSD
01GV878	AXG2	5100 960GB Enterprise Mainstream SATA HS 3.5" SSD
01GV883	AXG3	5100 1.92TB Enterprise Mainstream SATA HS 3.5" SSD
01GV090	AXG4	5100 3.84TB Enterprise Mainstream SATA HS 3.5" SSD
2.5-inch non-hot-swap drives for NeXtScale		
01GV888	AXHE	5100 240GB Enterprise Mainstream SATA 2.5" SSD for NeXtScale
01GV893	AXHF	5100 480GB Enterprise Mainstream SATA 2.5" SSD for NeXtScale
01GV898	AXHG	5100 960GB Enterprise Mainstream SATA 2.5" SSD for NeXtScale
01GV903	AXHH	5100 1.92TB Enterprise Mainstream SATA 2.5" SSD for NeXtScale

Part number	Feature	Description
01GV095	AXHJ	5100 3.84TB Enterprise Mainstream 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	
4XB0K12416	LTS Gen 5 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD
4XB0K12417	LTS Gen 5 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD
4XB0K12418	LTS Gen 5 2.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD
4XB0K12419	LTS Gen 5 2.5" 1.92TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD
4XB0K12420	LTS Gen 5 2.5" 3.84TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD
3.5-inch hot-swap drives - ThinkServer	
4XB0K12421	LTS Gen 5 3.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD
4XB0K12423	LTS Gen 5 3.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD
4XB0K12425	LTS Gen 5 3.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD
4XB0K12427	LTS Gen 5 3.5" 1.92TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD
4XB0K12428	LTS Gen 5 3.5" 3.84TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD
3.5-inch non-hot-swap drives for TS150	
4XB0K12422	LTS TS150 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray
4XB0K12424	LTS TS150 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray
4XB0K12426	LTS TS150 2.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray
2.5-inch and 3.5-inch non-hot-swap drives for RS160	
4XB0K12429	LTS 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps SSD for RS-Series
4XB0K12430	LTS 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps SSD for RS-Series
4XB0K12431	LTS 2.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps SSD for RS-Series
4XB0K12432	LTS 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray for RS-Series
4XB0K12433	LTS 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray for RS-Series
4XB0K12434	LTS 2.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray for RS-Series

## Features

The 5100 Enterprise Mainstream 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 mixed read/write workloads with an endurance of between 2.5 and 5 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 Mainstream 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 Mainstream SATA SSD has an endurance of 8,800 TB of total bytes written (TBW). This means that for full operation over five years, write workload must be limited to no more than 4,822 GB of writes per day, which is equivalent to 2.5 full drive writes per day (DWPD). For the device to last three years, the drive write workload must be limited to no more than 8,037 GB of writes per day, which is equivalent to 4.2 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 with the exception of the 480 GB drive are the Lenovo versions of the Micron 5100 PRO family of SSDs. The 480 GB drive is the Lenovo version of the Micron 5100 MAX SSD with higher drive endurance.

Table 4. Technical specifications

Feature	240 GB drive	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	6 Gbps SATA
Capacity	240 GB	480 GB	960 GB	1.92 TB	3.84 TB
Endurance (drive writes per day)	3.4 DWPD	5.0 DWPD	2.5 DWPD	2.5 DWPD	2.5 DWPD
Endurance (total bytes written)	1500 TB	4400 TB	4400 TB	8800 TB	17,600 TB
Data reliability	< 1 in 10 <sup>17</sup> bits read	< 1 in 10 <sup>17</sup> bits read	< 1 in 10 <sup>17</sup> bits read	< 1 in 10 <sup>17</sup> bits read	< 1 in 10 <sup>17</sup> bits read
MTBF	2,000,000 hours	2,000,000 hours	2,000,000 hours	2,000,000 hours	2,000,000 hours
IOPS reads (4 KB blocks)	78,000	93,000	93,000	93,000	93,000
IOPS writes (4 KB blocks)	26,000	74,000	37,000	37,000	30,000
Sequential read rate (128 KB blocks)	540 MBps	540 MBps	540 MBps	540 MBps	540 MBps
Sequential write rate (128 KB blocks)	250 MBps	460 MBps	520 MBps	520 MBps	520 MBps
Read latency (seq)	500 µs	500 µs	500 µs	500 µs	500 µs
Write latency (seq)	500 µs	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	1,500 G (Max) at 0.5 ms
Vibration, non-operating	3.13 G <sub>RMS</sub> (5-800 Hz)	3.13 G <sub>RMS</sub> (5-800 Hz)	3.13 G <sub>RMS</sub> (5-800 Hz)	3.13 G <sub>RMS</sub> (5-800 Hz)	3.13 G <sub>RMS</sub> (5-800 Hz)
Typical power	4.5 W	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)	SR850P (7D2F/2D2G)	SR860 (7X69/7X70)	SR950 (7X11/12/13)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
<b>2.5-inch hot-swap drives - ThinkSystem</b>																							
2.5" 5100 240GB Mainstream SATA 6Gb Hot Swap SSD, 7SD7A05765	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y
2.5" 5100 480GB Mainstream SATA 6Gb Hot Swap SSD, 7SD7A05764	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y
2.5" 5100 960GB Mainstream SATA 6Gb Hot Swap SSD, 7SD7A05763	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y
2.5" 5100 1.92TB Mainstream SATA 6Gb Hot Swap SSD, 7SD7A05762	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y
2.5" 5100 3.84TB Mainstream SATA 6Gb Hot Swap SSD, 7SD7A05761	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y
<b>3.5-inch hot-swap drives - ThinkSystem</b>																							
3.5" 5100 240GB Mainstream SATA 6Gb Hot Swap SSD, 7SD7A05760	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N
3.5" 5100 480GB Mainstream SATA 6Gb Hot Swap SSD, 7SD7A05759	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N
3.5" 5100 960GB Mainstream SATA 6Gb Hot Swap SSD, 7SD7A05758	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N
3.5" 5100 1.92TB Mainstream SATA 6Gb Hot Swap SSD, 7SD7A05757	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N
3.5" 5100 3.84TB Mainstream SATA 6Gb Hot Swap SSD, 7SD7A05756	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	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)
01GV843	5100 240GB Enterprise Mainstream SATA G3HS 2.5" SSD	Y	Y	Y	Y	Y	Y	Y	N
01GV848	5100 480GB Enterprise Mainstream SATA G3HS 2.5" SSD	Y	Y	Y	Y	Y	Y	Y	N
01GV853	5100 960GB Enterprise Mainstream SATA G3HS 2.5" SSD	Y	Y	Y	Y	Y	Y	Y	N
01GV858	5100 1.92TB Enterprise Mainstream SATA G3HS 2.5" SSD	Y	Y	Y	Y	Y	Y	Y	N
01GV863	5100 3.84TB Enterprise Mainstream SATA G3HS 2.5" SSD	Y	Y	Y	Y	Y	Y	Y	N
01GV868	5100 240GB Enterprise Mainstream SATA HS 3.5" SSD	Y	Y	Y	Y	N	N	N	N
01GV873	5100 480GB Enterprise Mainstream SATA HS 3.5" SSD	Y	Y	Y	Y	N	N	N	N
01GV878	5100 960GB Enterprise Mainstream SATA HS 3.5" SSD	Y	Y	Y	Y	N	N	N	N
01GV883	5100 1.92TB Enterprise Mainstream SATA HS 3.5" SSD	Y	Y	Y	Y	N	N	N	N
01GV090	5100 3.84TB Enterprise Mainstream SATA HS 3.5" SSD	Y	Y	Y	Y	N	N	N	N
01GV888	5100 240GB Enterprise Mainstream SATA 2.5" SSD for NeXtScale	N	N	N	N	N	Y	N	Y
01GV893	5100 480GB Enterprise Mainstream SATA 2.5" SSD for NeXtScale	N	N	N	N	N	Y	N	Y
01GV898	5100 960GB Enterprise Mainstream SATA 2.5" SSD for NeXtScale	N	N	N	N	N	Y	N	Y
01GV903	5100 1.92TB Enterprise Mainstream SATA 2.5" SSD for NeXtScale	N	N	N	N	N	Y	N	Y
01GV095	5100 3.84TB Enterprise Mainstream SATA 2.5" SSD for NeXtScale	N	N	N	N	N	Y	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 7. 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)
4XB0K12416	LTS Gen 5 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	Y	Y	N	N	Y	Y	Y	Y
4XB0K12417	LTS Gen 5 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	Y	Y	N	N	Y	Y	Y	Y
4XB0K12418	LTS Gen 5 2.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	Y	Y	N	N	Y	Y	Y	Y
4XB0K12419	LTS Gen 5 2.5" 1.92TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	Y	Y	Y	Y
4XB0K12420	LTS Gen 5 2.5" 3.84TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	Y	Y	Y	Y
4XB0K12421	LTS Gen 5 3.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	Y	Y	N	N	Y	Y	Y	Y
4XB0K12423	LTS Gen 5 3.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	Y	Y	N	N	Y	Y	Y	Y
4XB0K12425	LTS Gen 5 3.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	Y	Y	N	N	Y	Y	Y	Y
4XB0K12427	LTS Gen 5 3.5" 1.92TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	Y	Y	Y	Y
4XB0K12428	LTS Gen 5 3.5" 3.84TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	Y	Y	Y	Y
4XB0K12422	LTS TS150 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray	Y	N	N	N	N	N	N	N	N
4XB0K12424	LTS TS150 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray	Y	N	N	N	N	N	N	N	N
4XB0K12426	LTS TS150 2.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray	Y	N	N	N	N	N	N	N	N
4XB0K12429	LTS 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps SSD for RS-Series	N	N	N	Y	N	N	N	N	N
4XB0K12430	LTS 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps SSD for RS-Series	N	N	N	Y	N	N	N	N	N
4XB0K12431	LTS 2.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps SSD for RS-Series	N	N	N	Y	N	N	N	N	N
4XB0K12432	LTS 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray for RS-Series	N	N	N	Y	N	N	N	N	N
4XB0K12433	LTS 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray for RS-Series	N	N	N	Y	N	N	N	N	N
4XB0K12434	LTS 2.5" 960GB 5100 Enterprise Mainstream 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 8. 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)
4XB0K12416	LTS Gen 5 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12417	LTS Gen 5 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12418	LTS Gen 5 2.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12419	LTS Gen 5 2.5" 1.92TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12420	LTS Gen 5 2.5" 3.84TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12421	LTS Gen 5 3.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12423	LTS Gen 5 3.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12425	LTS Gen 5 3.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12427	LTS Gen 5 3.5" 1.92TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12428	LTS Gen 5 3.5" 3.84TB 5100 Enterprise Mainstream SATA 6Gbps Hot Swap SSD	N	N	N	N	N	N
4XB0K12422	LTS TS150 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray	N	N	N	N	N	N
4XB0K12424	LTS TS150 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray	N	N	N	N	N	N
4XB0K12426	LTS TS150 2.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray	N	N	N	N	N	N
4XB0K12429	LTS 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps SSD for RS-Series	N	N	N	N	N	N
4XB0K12430	LTS 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps SSD for RS-Series	N	N	N	N	N	N
4XB0K12431	LTS 2.5" 960GB 5100 Enterprise Mainstream SATA 6Gbps SSD for RS-Series	N	N	N	N	N	N
4XB0K12432	LTS 2.5" 240GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray for RS-Series	N	N	N	N	N	N
4XB0K12433	LTS 2.5" 480GB 5100 Enterprise Mainstream SATA 6Gbps SSD with 3.5" Tray for RS-Series	N	N	N	N	N	N
4XB0K12434	LTS 2.5" 960GB 5100 Enterprise Mainstream 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 9. 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
01GV843	5100 240GB Enterprise Mainstream SATA G3HS 2.5" SSD	N	N	Y	Y	N	N	N	N
01GV848	5100 480GB Enterprise Mainstream SATA G3HS 2.5" SSD	N	N	Y	Y	N	N	N	N
01GV853	5100 960GB Enterprise Mainstream SATA G3HS 2.5" SSD	N	N	Y	Y	N	N	N	N
01GV858	5100 1.92TB Enterprise Mainstream SATA G3HS 2.5" SSD	N	N	Y	Y	N	N	N	N
01GV863	5100 3.84TB Enterprise Mainstream SATA G3HS 2.5" SSD	N	N	Y	Y	N	N	N	N
01GV868	5100 240GB Enterprise Mainstream SATA HS 3.5" SSD	N	N	N	N	N	N	N	N
01GV873	5100 480GB Enterprise Mainstream SATA HS 3.5" SSD	N	N	N	N	N	N	N	N
01GV878	5100 960GB Enterprise Mainstream SATA HS 3.5" SSD	N	N	N	N	N	N	N	N
01GV883	5100 1.92TB Enterprise Mainstream SATA HS 3.5" SSD	N	N	N	N	N	N	N	N
01GV090	5100 3.84TB Enterprise Mainstream SATA HS 3.5" SSD	N	N	N	N	N	N	N	N
01GV888	5100 240GB Enterprise Mainstream SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	N	N
01GV893	5100 480GB Enterprise Mainstream SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	N	N
01GV898	5100 960GB Enterprise Mainstream SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	N	N
01GV903	5100 1.92TB Enterprise Mainstream SATA 2.5" SSD for NeXtScale	N	N	N	N	N	N	N	N
01GV095	5100 3.84TB Enterprise Mainstream 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 product guide for more information:

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

## Warranty

The 5100 Enterprise Mainstream 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 Mainstream 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 Entry SATA SSDs  
<http://lenovopress.com/lp0633>
- 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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