



ThinkSystem 5200 Entry 6Gb SATA SSDs Product Guide (withdrawn product)

The 5200 Entry SATA solid-state drives (SSDs) are new SSDs for ThinkSystem servers. The drives use Micron 64-layer 3D NAND flash memory technology with a SATA 6Gbps interface and provide an affordable solution for read-intensive applications such as boot, web servers, lower data rate operational databases and analytics.

The 5200 Entry SATA SSD is shown in the following figure.



Figure 1. Lenovo ThinkSystem 5200 Entry SATA SSD

Did you know?

The 5200 Series of SATA SSDs are the follow-on to the 5100 line of SSDs. The two series share the same controller, firmware, interface and features. The key difference is that the 5200 Series uses a new 64-layer 3D NAND storage medium. The new NAND technology results in similar or improved performance, and improved endurance.

Lenovo also offers high-performance self-encrypting drives (SEDs) in the 5200 Series. These SSDs adhere to the Trusted Computing Group Enterprise Security Subsystem Class cryptographic standard (TCG Enterprise SSC). Read about them in the ThinkSystem 5200 Entry SATA 6Gb SED SSD product guide .

Part number information

The following table lists the ThinkSystem part numbers.

Withdrawn: All 5200 Entry SSDs are now withdrawn from marketing.

Table 1.	ThinkSystem	ordering	information
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Part number	Feature	Description				
2.5-inch hot-swa	ap drives					
4XB7A10153	B2X2	ThinkSystem 2.5" 5200 480GB Entry SATA 6Gb Hot Swap SSD				
4XB7A10154	B2X3	ThinkSystem 2.5" 5200 960GB Entry SATA 6Gb Hot Swap SSD				
4XB7A10155	B2X4	ThinkSystem 2.5" 5200 1.92TB Entry SATA 6Gb Hot Swap SSD				
4XB7A10156	B2X5	ThinkSystem 2.5" 5200 3.84TB Entry SATA 6Gb Hot Swap SSD				
4XB7A10157	B2X6	ThinkSystem 2.5" 5200 7.68TB Entry SATA 6Gb Hot Swap SSD				
3.5-inch hot-swa	ap drives					
4XB7A10158 B2X7 ThinkSystem 3.5" 5200 480GB Entry SATA 6Gb Hot Swap SSD						
4XB7A10159	B2X8	ThinkSystem 3.5" 5200 960GB Entry SATA 6Gb Hot Swap SSD				
4XB7A10160	B2X9	ThinkSystem 3.5" 5200 1.92TB Entry SATA 6Gb Hot Swap SSD				
4XB7A10161	B2XA	ThinkSystem 3.5" 5200 3.84TB Entry SATA 6Gb Hot Swap SSD				
4XB7A10162	B2XB	ThinkSystem 3.5" 5200 7.68TB Entry SATA 6Gb Hot Swap SSD				
3.5-inch simple-	swap drives	3				
4XB7A08515	B5Y3	ThinkSystem 3.5" 5200 480GB Entry SATA 6Gb Simple Swap SSD				
4XB7A10151	B5Y4	ThinkSystem 3.5" 5200 960GB Entry SATA 6Gb Simple Swap SSD				
3.5-inch non-hor	t-swap drive	es for ST50				
4XB7A14050	B63R	ThinkSystem ST50 3.5" 5200 480GB Entry SATA 6Gb Non Hot Swap SSD				
4XB7A14051	B63S	ThinkSystem ST50 3.5" 5200 960GB Entry SATA 6Gb Non Hot Swap SSD				

Features

The 5200 Enterprise Entry SATA SSDs have the following features:

- Industry standard 2.5-inch or 3.5-inch form factors
- 64-layer 3D TLC NAND flash memory
- Suitable for read-intensive workloads with an endurance of between 0.6 and 1.1 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 5200 Entry 3.8 4TB drive has an endurance of 7,700 TB of total bytes written (TBW). This means that for full operation over five years, write workload must be limited to no more than 4,219 GB of writes per day, which is equivalent to 1.1 full drive writes per day (DWPD). For the device to last three years, the drive write workload must be limited to no more than 7,032 GB of writes per day, which is equivalent to 1.8 full drive writes per day.

Technical specifications

The following table presents technical specifications for the 5200 Enterprise Entry SATA SSDs.

Tip: Drives listed in this product guide are the Lenovo versions of the Micron 5200 ECO family of SSDs.

Feature	480 GB drive	960 GB drive	1.92 TB drive	3.84 TB drive	7.68 TB drive
Interface	6 Gbps SATA				
Capacity	480 GB	960 GB	1.92 TB	3.84 TB	7.68 TB
Endurance (drive writes per day)	0.7 DWPD	1.0 DWPD	1.0 DWPD	1.1 DWPD	0.6 DWPD
Endurance (total bytes written)	610 TB	1750 TB	3500 TB	7700 TB	8400 TB
Data reliability	< 1 in 10 ¹⁷ 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)	81,000	95,000	95,000	95,000	95,000
IOPS writes (4 KB blocks)	31,000	28,000	22,000	17,000	9,500
Sequential read rate (128 KB blocks)	540 MBps				
Sequential write rate (128 KB blocks)	385 MBps	520 MBps	520 MBps	520 MBps	520 MBps
Read latency (seq)	200 µs				
Write latency (seq)	300 µs	300 µs	300 µs	500 µs	900 µs
Shock, non-operating	1,500 G (Max) at 0.5 ms				
Vibration, non-operating	3.13 G _{RMS} (5-800 Hz)				
Typical power	6.0 W				

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 3. Server support (Part 1 of 4)

		2		АМI /3	D	25	S In V3			S 8 tel '			/lul lod		G	PU		S /3		
Part Number	Description	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)	SD535 V3 (7DD8 / 7DD1)	SD530 V3 (7DDA / 7DD3)	SD550 V3 (7DD9 / 7DD2)	SR670 V2 (7Z22 / 7Z23)	SR675 V3 (7D9Q / 7D9R)	SR680a V3 (7DHE)	SR685a V3 (7DHC)	ST250 V3 (7DCF / 7DCE)	SR250 V3 (7DCM / 7DCL)
2.5-inch hot-s	-	1	1	1	1	1		1	1	-		-		1	1	1			-	
4XB7A10153	ThinkSystem 2.5" 5200 480GB Entry SATA 6Gb Hot Swap SSD	N	N	N	N	N	Ν	N	Ν	Ν	Ν	Ν	Ν	N	N	N	Ν	Ν	Ν	N
4XB7A10154	ThinkSystem 2.5" 5200 960GB Entry SATA 6Gb Hot Swap SSD	N	N	N	N	N	Ν	N	N	Ν	Ν	Ν	Ν	N	N	N	Ν	Ν	Ν	N
4XB7A10155	ThinkSystem 2.5" 5200 1.92TB Entry SATA 6Gb Hot Swap SSD	N	N	N	N	Ν	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	N	N	Ν	Ν	Ν	N
4XB7A10156	ThinkSystem 2.5" 5200 3.84TB Entry SATA 6Gb Hot Swap SSD	N	N	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
4XB7A10157	ThinkSystem 2.5" 5200 7.68TB Entry SATA 6Gb Hot Swap SSD	N	N	N	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	N	Ν	Ν	Ν	Ν
3.5-inch hot-s	swap drives																			
4XB7A10158	ThinkSystem 3.5" 5200 480GB Entry SATA 6Gb Hot Swap SSD	Ν	N	N	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
4XB7A10159	ThinkSystem 3.5" 5200 960GB Entry SATA 6Gb Hot Swap SSD	N	N	N	N	Ν	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	N	N	Ν	Ν	Ν	Ν
4XB7A10160	ThinkSystem 3.5" 5200 1.92TB Entry SATA 6Gb Hot Swap SSD	N	N	N	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
4XB7A10161	ThinkSystem 3.5" 5200 3.84TB Entry SATA 6Gb Hot Swap SSD	N	N	N	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	N	Ν	Ν	Ν	Ν
4XB7A10162	ThinkSystem 3.5" 5200 7.68TB Entry SATA 6Gb Hot Swap SSD	N	Ν	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
3.5-inch simp	le-swap drives																			
4XB7A08515	ThinkSystem 3.5" 5200 480GB Entry SATA 6Gb Simple Swap SSD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4XB7A10151	ThinkSystem 3.5" 5200 960GB Entry SATA 6Gb Simple Swap SSD	N	N	N	N	N	N	N	N	N	N	N	Ν	N	N	N	N	N	N	N
3.5-inch non-	hot-swap drives for ST50								•										•	-
4XB7A14050	ThinkSystem ST50 3.5" 5200 480GB Entry SATA 6Gb Non Hot Swap SSD	N	N	N	N	N	N	N	N	N	Ν	N	Ν	N	N	N	N	N	N	N
4XB7A14051	ThinkSystem ST50 3.5" 5200 960GB Entry SATA 6Gb Non Hot Swap SSD	N	N	N	N	N	N	N	N	N	Ν	N	Ν	N	N	N	Ν	N	N	N

Table 4. Server support (Part 2 of 4)

			E	Edg	e		(upe npu		g	15	6 In V2	tel	28	6 In V2	
Part Number	Description	SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	SE455 V3 (7DBY)	SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	SD650-N V3 (7D7N)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	ST650 V2 (7Z75 / 7Z74)	(7Z70	SR650 V2 (7Z72 / 7Z73)
2.5-inch hot-s	•			I													
4XB7A10153	ThinkSystem 2.5" 5200 480GB Entry SATA 6Gb Hot Swap SSD	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	N
4XB7A10154	ThinkSystem 2.5" 5200 960GB Entry SATA 6Gb Hot Swap SSD	N	N	N	Ν	N	Ν	Ν	N	Ν	Ν	N	Ν	Ν	Ν	Ν	Ν
4XB7A10155	ThinkSystem 2.5" 5200 1.92TB Entry SATA 6Gb Hot Swap SSD	Ν	N	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
4XB7A10156	ThinkSystem 2.5" 5200 3.84TB Entry SATA 6Gb Hot Swap SSD	N	N	N	N	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
4XB7A10157	ThinkSystem 2.5" 5200 7.68TB Entry SATA 6Gb Hot Swap SSD	Ν	N	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
3.5-inch hot-s	swap drives																
4XB7A10158	ThinkSystem 3.5" 5200 480GB Entry SATA 6Gb Hot Swap SSD	Ν	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
4XB7A10159	ThinkSystem 3.5" 5200 960GB Entry SATA 6Gb Hot Swap SSD	N	N	N	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
4XB7A10160	ThinkSystem 3.5" 5200 1.92TB Entry SATA 6Gb Hot Swap SSD	Ν	N	N	Ν	Ν	Z	Ν	Ν	Z	Ν	Ν	Z	Z	Z	Z	Ν
4XB7A10161	ThinkSystem 3.5" 5200 3.84TB Entry SATA 6Gb Hot Swap SSD	Ν	N	Ν	Ν	N	Z	Ν	Ν	Z	Ν	Ν	Z	Z	Z	Z	Ν
4XB7A10162	ThinkSystem 3.5" 5200 7.68TB Entry SATA 6Gb Hot Swap SSD	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
3.5-inch simp	le-swap drives																
4XB7A08515	ThinkSystem 3.5" 5200 480GB Entry SATA 6Gb Simple Swap SSD	Ν	Ν	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
4XB7A10151	ThinkSystem 3.5" 5200 960GB Entry SATA 6Gb Simple Swap SSD	Ν	N	N	Ν	Ν	Z	Ν	Ν	Z	Ν	Ν	Z	N	Z	Z	Ν
3.5-inch non-	hot-swap drives for ST50																
4XB7A14050	ThinkSystem ST50 3.5" 5200 480GB Entry SATA 6Gb Non Hot Swap SSD	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	N
4XB7A14051	ThinkSystem ST50 3.5" 5200 960GB Entry SATA 6Gb Non Hot Swap SSD	N	N	N	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	N

Table 5. Server support (Part 3 of 4)

											4	s		[
			A	MD	V1	1	D	ens	se \	/2	V	2	8S	4	s v	′1	15	5 In	tel ۱	V1
Part Number	Description	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7269)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7259 / 7260)	SR950 (7X11 / 7X12)	SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST50 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)
2.5-inch hot-s	•			-	r	r	1	1	-	r	-								_	
4XB7A10153	ThinkSystem 2.5" 5200 480GB Entry SATA 6Gb Hot Swap SSD	Y	Y	N	N	N	N	N	N	N	N	Ν	Y	Y	Y	Y	Ν	Y	N	Y
4XB7A10154	ThinkSystem 2.5" 5200 960GB Entry SATA 6Gb Hot Swap SSD	Y	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Y	Y	Y	Y	Ν	Y	Ν	Y
4XB7A10155	ThinkSystem 2.5" 5200 1.92TB Entry SATA 6Gb Hot Swap SSD	Y	Y	Ν	Ν	N	Ν	Ν	Ν	N	Ν	Ν	Y	Y	Y	Y	Ν	Ν	N	Ν
4XB7A10156	ThinkSystem 2.5" 5200 3.84TB Entry SATA 6Gb Hot Swap SSD	Y	Y	Ν	Ν	N	N	N	Ν	N	Ν	Ν	Y	Y	Y	Y	Ν	Ν	N	Ν
4XB7A10157	ThinkSystem 2.5" 5200 7.68TB Entry SATA 6Gb Hot Swap SSD	Y	Y	Ν	N	N	N	N	N	N	Ν	Ν	Y	Y	Y	Y	Ν	Ν	Ν	Ν
3.5-inch hot-s	swap drives																			
4XB7A10158	ThinkSystem 3.5" 5200 480GB Entry SATA 6Gb Hot Swap SSD	Y	Y	Ν	Ν	N	Ν	Ν	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Y	Ν	Y
4XB7A10159	ThinkSystem 3.5" 5200 960GB Entry SATA 6Gb Hot Swap SSD	Y	Y	Ν	N	N	N	N	N	N	N	Ν	Ν	N	N	Ν	Ν	Y	N	Y
4XB7A10160	ThinkSystem 3.5" 5200 1.92TB Entry SATA 6Gb Hot Swap SSD	Y	Y	N	N	N	N	N	N	N	N	Ν	N	N	N	Ν	Ν	Ν	N	N
4XB7A10161	ThinkSystem 3.5" 5200 3.84TB Entry SATA 6Gb Hot Swap SSD	N	Ν	Ν	N	N	N	N	Ν	N	N	Ν	N	N	N	Ν	Ν	Ν	N	Ν
4XB7A10162	ThinkSystem 3.5" 5200 7.68TB Entry SATA 6Gb Hot Swap SSD	N	Ν	Ν	N	N	N	N	N	N	Ν	Ν	N	N	Ν	Ν	Ν	Ν	N	Ν
3.5-inch simp	le-swap drives																			
4XB7A08515	ThinkSystem 3.5" 5200 480GB Entry SATA 6Gb Simple Swap SSD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Ν	Y	Y	Y
4XB7A10151	ThinkSystem 3.5" 5200 960GB Entry SATA 6Gb Simple Swap SSD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Ν	Y	Y	Y
3.5-inch non-	hot-swap drives for ST50		•	•	•	-	•	•	-	•	•			•	•	•				
4XB7A14050	ThinkSystem ST50 3.5" 5200 480GB Entry SATA 6Gb Non Hot Swap SSD	N	N	N	N	N	N	N	N	N	N	N	Ν	N	N	N	Y	N	N	N
4XB7A14051	ThinkSystem ST50 3.5" 5200 960GB Entry SATA 6Gb Non Hot Swap SSD	N	N	N	N	N	N	N	N	N	N	Ν	Ν	N	N	N	Y	Ν	N	N

Table 6. Server support (Part 4 of 4)

				28	S In	tel	V1			D	ens	se \	/1
Part Number	Description	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	(7Y02/	SR590 (7X98 / 7X99)	(7X01/	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
2.5-inch hot-s	-	_	-	-	-	-	1	1	-	-	1		_
4XB7A10153	ThinkSystem 2.5" 5200 480GB Entry SATA 6Gb Hot Swap SSD	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y
4XB7A10154	ThinkSystem 2.5" 5200 960GB Entry SATA 6Gb Hot Swap SSD	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y
4XB7A10155	ThinkSystem 2.5" 5200 1.92TB Entry SATA 6Gb Hot Swap SSD	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y
4XB7A10156	ThinkSystem 2.5" 5200 3.84TB Entry SATA 6Gb Hot Swap SSD	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y
4XB7A10157	ThinkSystem 2.5" 5200 7.68TB Entry SATA 6Gb Hot Swap SSD	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Ν	Y	Y
3.5-inch hot-s	swap drives												
4XB7A10158	ThinkSystem 3.5" 5200 480GB Entry SATA 6Gb Hot Swap SSD	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Ν	Ν	Ν
4XB7A10159	ThinkSystem 3.5" 5200 960GB Entry SATA 6Gb Hot Swap SSD	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Ν	Ν	Ν
4XB7A10160	ThinkSystem 3.5" 5200 1.92TB Entry SATA 6Gb Hot Swap SSD	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Ν	Ν	Ν
4XB7A10161	ThinkSystem 3.5" 5200 3.84TB Entry SATA 6Gb Hot Swap SSD	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	N	Ν	N
4XB7A10162	ThinkSystem 3.5" 5200 7.68TB Entry SATA 6Gb Hot Swap SSD	Y	Y	Y	Y	Y	Y	Y	N	Ν	N	Ν	Ν
3.5-inch simp	le-swap drives												-
4XB7A08515	ThinkSystem 3.5" 5200 480GB Entry SATA 6Gb Simple Swap SSD	Ν	N	N	Ν	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν
4XB7A10151	ThinkSystem 3.5" 5200 960GB Entry SATA 6Gb Simple Swap SSD	Ν	N	N	N	N	N	N	N	Ν	Ν	Ν	N
3.5-inch non-	hot-swap drives for ST50		-	-	-	-		-	-		-		
4XB7A14050	ThinkSystem ST50 3.5" 5200 480GB Entry SATA 6Gb Non Hot Swap SSD	Ν	N	N	Ν	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν
4XB7A14051	ThinkSystem ST50 3.5" 5200 960GB Entry SATA 6Gb Non Hot Swap SSD	N	N	N	Ν	N	N	N	Ν	Ν	N	Ν	N

Operating system support

SATA 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 5200 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 5200 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:

- Lenovo ThinkSystem storage options product web page https://lenovopress.com/lp0761-storage-options-for-thinksystem-servers
- ServerProven support http://www.lenovo.com/us/en/serverproven
- 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

Related product families

Product families related to this document are the following:

• Drives

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