



6Gb/s SAS Enterprise 2.5" SSDs

Lightning® Write-Intensive SAS SSDs

An enterprise solution that provides accelerated performance with superior reliability

Features

- End-to-End Data Protection
- Capacitor-Backed Cache
- Reliability: 2M hour MTBF
- UBER: <1 sector 10¹⁷ bits read
- 5-Year Warranty⁴

Benefits

- Predictable Performance
- Trusted Reliability
- Cost-Effective I/O

Application Workloads

- High Performance Computing (HPC)
 - Oil and Gas
 - Life Sciences
 - Aerospace
 - Engineering
- Media Editing
- Analytics
- Indexing
- Database Logging

IT Managers are consistently challenged with the demand for higher performance and increased storage capacity for today's data centers. Since not all data centers are created equal, the key to achieving increased data and system performance is in understanding the specific application workload. Lightning Write-Intensive 6Gb/s (SAS) SSDs offer solid cost-to-performance benefits optimized for data management and endurance of high-speed storage and server environments.

Available in 200GB and 400GB² SLC capacities and delivers random read/write performance of up to 118K/33K IOPS and sequential read/write data throughput rates of up to 450/250 MB/s¹. Lightning Write-Intensive SSDs provide an I/O pattern designed around frequent writes for application workloads such as High Performance Computing (HPC), Media Editing, Analytics, Indexing and Database Logging, with a heavy workload comprised of a 50/50 read/write mix.

SSD performance is dependent on the grade of NAND flash memory used, and sophistication of the controller and firmware. Lightning Write-Intensive SSDs are designed with an advanced innovative controller that uses a parallel processing architecture with single firmware binary to provide the industry's leading sustained performance, low response times under peak conditions for predictable performance, and proven and tested endurance for superior reliability. Lightning SSDs have been designed to meet demanding, mission critical, 24/7 applications.

Lightning SAS SSDs are certified on the following hardware compatibility lists.

	WI	MU	RI
LSI RAID/HBA	•	•	•
Windows Certification	•	•	•
VMware Flash Ready Cache		400GB/ 800GB	
VMware Virtual SAN		400GB/ 800GB	
Nexenta		•	•
Intel Server Systems (All)	•	•	•

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SanDisk®

At SanDisk, we're expanding the possibilities of data storage. For more than 25 years, SanDisk's ideas have helped transform the industry, delivering next generation storage solutions for consumers and businesses around the globe.

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Lightning Write-Intensive 2.5" SAS Enterprise SSDs Product Specifications

	LB 206S	LB 406S
Performance/IOPS		
Data Throughput (Sequential Read/Write) ¹	450/250 MB/s	450/250 MB/s
Total IOPS (Random Read)	118,000 IOPS	118,000 IOPS
Random Write 4KB – 50/50 (single port)	33,000 IOPS	33,000 IOPS
Random Write 8KB – 50/50 (single port)	26,000 IOPS	26,000 IOPS
Interface, Capacity, and Memory Technology		
Host Interface	6Gb/s SAS	
Interface Ports	Dual (2) full-duplex	
Form Factor	2.5 inch	
SLC User Capacities ²	200GB	400GB
Sector Sizes Supported	512, 520 or 528 bytes/sector	
Reliability		
Unrecovered Bit Error Rate (UBER)	<1 sector in 10 ¹⁷ bits read	
End-to-End Data Protection	No performance impact	
Patrol Read (automatic)	No performance impact	
Power-on Hours	8760 hours per year	
MTBF ³	2 million hours	
Warranty ⁴	Lesser of 5 years or maximum endurance used	
Physical Dimensions		
Height (max)	15.0 mm	
Width (max)	70.1 mm	
Length (max)	100.45 mm	
Weight	0.238 Kg	
Power Consumption		
Idle	3.9 watts	
Typical	5.9 watts	
Environment		
Operating Temperature (ambient)	0 to 60° C	
Non-operating Temperature	-40 to 85° C	
Start-up Time (Power-on to Ready)	<15 seconds	

Specifications subject to change without notice.

¹ Based on internal testing, performance may be lower depending upon host device, OS and application.

² 1 gigabyte (GB) = 1 billion bytes. Some capacity not available for data storage.

³ MTBF - Mean Time Between Failures based on parts stress analysis.

⁴ The earlier of (I) five (5) years or (II) the time at which such Product unit's total cumulative data recorded on such unit at its S.M.A.R.T. attribute (log page 2Fh, parameter 25) or log page 11h, parameter 1 (Percentage Used Endurance Indicator) reaches 100% of the Product unit's endurance value. For more warranty information, please visit kb.sandisk.com.

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