CloudSpeed Eco™ Gen. II SATA SSD

Hyperscale Data Center Flash Storage

Features

- Capacity offerings: 1.92TB, 960GB, and 480GB
- Highly-Reliable Data Throughput: 530MB/s sequential read performance
- Optimized for Read-Intensive application workloads
- Low power consumption compared to traditional HDDs
- Data loss protection with power failure protection
- Includes the innovative Guardian Technology™ Platform for improved flash endurance and data integrity & protection
- MTBF = 2 Million Hours

Specialized for the following workloads:

- Social Media
- Web Servers
- Content Repositories
- Video on Demand (VoD)
- Media Streaming
- Analytics, NoSQL, and Data Warehousing
- Web-based Applications

Evolving Cloud Storage Requirements and Data Growth

SaaS, IaaS, and PaaS business models are evolving to support enterprises for "mission-critical" type of infrastructure and applications. Consumers expect 24/7 access to cloud services and apps for entertainment and personal productivity.

For cloud service providers, the "mission-critical" nature of cloud services creates opportunities for higher performance tiers of service based on flash storage. In order to serve the new demands of cloud services, flash storage will have to perform with reliable throughput, data integrity & protection mechanisms, and better flash endurance.

Cloud Service Providers must also balance the insatiable appetite for data storage capacity at higher tiers of service without degradation to performance or storage cost overruns.

To help enable cloud service providers deliver richer data services and apps, while addressing growing data capacity demands, SanDisk® offers a SATA SSD specifically designed for hyperscale environments.

CloudSpeed Eco™ Gen. II SATA SSD - Specifically Designed for Hyperscale Data Centers

For a complete balance of storage capacity scale with data center features for "mission-critical" type of data services, CloudSpeed Eco Gen. II SATA SSDs, with up to 2TB* of capacity, serves demanding tiers of service at multi-petabyte capacity levels.

This flash storage SATA SSD works within existing infrastructure – SATA interface – and replaces hard disk drives (HDDs) for an overall lower total cost of ownership (TCO) and benefits of greater storage density.

SanDisk®
a Western Digital brand

CloudSpeed Eco™ Gen. II 2.5″ SATA SSD
Preliminary specifications subject to change

Performance	
Interface	SATA 6Gb/s
Sequential Read/Write (MB/s)**	Up to 530/460 MB/s[1]
Random Read/Write (IOPS)	Up to 76K/14K IOPS[2]

Capacity	
15nm MLC User Capacities*	480GB, 960GB and 1.92TB

Reliability	
Data Reliability (BER)	1 unrecoverable error in 10^{18}***** read[3]
MTBF***	2 Million Hours
Data Fail Recovery	Flexible Redundant Array of Independent Memory Elements (FRAME) Technology
Power Fail Recovery	Write cache immunity with in-flight data protection
Temperature Monitoring	S.M.A.R.T. warning with performance throttling
Warranty****	The lesser of 5 years or maximum endurance used

Endurance	
DWPD (Random/Workload)****	0.6 DWPD[5] for 5 years

Power	
Vcc	5.0V +10%/-5%
Active (Typ)	3.8W avg. sequential write, 2.6 avg. sequential read
Idle	1.6W RMS

Environmental	
Shock (operating)	1000g @ 1.0 msec, 1 shock along each axis, X, Y, Z, in each direction
Vibration (operating)	3.22 g rms, 5-1,000Hz
Operating Temperature	0° C to 70° C (internal)
Storage Temperature	-40° C to 85° C
Humidity	5% to 95%, non-condensing, relative humidity[4]
Altitude	(operating) -1,000 feet to 15,000 feet

Mechanical	
Length	100.2 mm
Width	69.85 mm
Height	7.17 mm

(1) Based on a 128KB transfer rate, using Oakgate SVF exerciser
(2) Based on 4KB transfer rate using Oakgate SVG exerciser
(3) The JEDEC 64.8 specification requires 1 in 10^{16} for enterprise-class SSDs
(4) Based on MIL-STD 810-F, Method 507.4
(5) Endurance based on 100% 4K random workload

CloudSpeed Eco™ Gen. II 2.5″ SATA SSD - Ordering Information

Part Number	Capacity
SDLF1DAR-480G-1Hxx	480GB
SDLF1DAR-960G-1Hxx	960GB
SDLF1CRR-019T-1Hxx	1.92TB

xx - Pack Out Option:
OEM/Hyperscale: A1
Channel: A2

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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.