6Gb/s SAS Enterprise 2.5" SSDs

Optimus® Product Family of SAS SSDs

Outstanding performance for a wide variety of mixed-use and write-intensive applications.

Features
- 10-50 Full Random Drive Writes/Day
- Five Year Warranty
- Data Integrity – BER 10[17]
- FlashGuard – Enhances Flash Endurance
- DataGuard – Ensures Data Integrity
- EverGuard – Reliable 24x7 operation

Optimus/Mixed-Use Application Workloads
- On-Line Transaction Processing (OLTP) Databases
- Financial Transactions
- E-Commerce
- Data Warehousing
- E-Mail/Messaging

Ultra & Ultra+/Write-Intensive Application Workloads
- High Performance Computing (HPC)
- Oil and Gas
- Life Sciences
- Aerospace
- Engineering
- Media Editing
- Analytics
- Indexing
- Database Logging

OEMs and IT managers no longer have to compromise on performance, endurance and reliability to obtain affordability. Optimus SSDs offer all four in a single package through a combination of unique and innovative IP, and the use of Multi-Level Cell (MLC) flash. SanDisk's newest generation of SSDs feature a native SAS 6Gb/s interface, outstanding performance metrics, and a comprehensive set of high-end features making them ideal to integrate with existing infrastructure for a wide variety of enterprise environments such as servers, external storage arrays, and storage area networks (SAN) where performance and high-availability are required.

Available in capacities of 100GB - 1.6TB*, Optimus SSDs provide random read/write performance up to 95K/40K IOPS and sequential read/write data transfer rates of up to 500/500 MB/s**. Optimus SSDs also include support for wide-port SAS capability providing up to 1 GB/s sustained read performance in applications that support this advanced feature. Optimus SSDs range from 10 - 50 full random drive writes per day (DWPD). Optimus SSDs have a 5 year warranty.

Guardian Technology™ Platform

The product family of Optimus SAS SSDs is powered by SanDisk's proprietary Guardian Technology Platform, a comprehensive suite of enterprise features comprised of FlashGuard™, DataGuard™ and EverGuard™ technologies.

FlashGuard Technology combines Aggregated Flash Management, which treats all flash elements as a single system, and Advanced Signal Processing, which dynamically adjusts flash parameters throughout the life of the SSD, to reliably extract significantly more life from commercial-grade MLC flash, making it suitable for mixed-use and write-intensive application workloads.

DataGuard Technology features full data path protection, safeguarding user data from corruption along all data paths in the SSD.

EverGuard Technology protects against loss of user data in the event of unexpected power interruptions using a 3rd generation backup power circuit design and high-reliability discrete capacitors. Optimus SAS SSDs are designed for I/O intensive, mission-critical, 24/7 applications.

SanDisk®

	Optimus	Optimus Ultra	Optimus Ultra+
Performance			
Interface	6Gb/s SAS		
Interface Ports	Dual/Wide		
Sequential Read/Write (MB/s)**	500/500 MB/s[1] 1 GB/s Wide-Port		
Random Read/Write (IOPS)	Up to 95K/40K[2]	Up to 95K/40K[2]	Up to 95K/40K[2]
Capacity			
MLC User Capacities*	200GB-1.6TB	150GB-1.2TB	100-800GB
Reliability			
Sector Sizes	512, 520, 528 byte		
Data Reliability (BER)	1 unrecoverable error in 10^{17} bits read		
MTBF***	2.5M hours		
Data Fail Recovery	F.R.A.M.E. (Flexible Redundant Array of Memory Elements)		
Power Fail Recovery	EverGuard: Backup Power Circuitry		
Data Path Protection	DataGuard		
Warranty****	5 Years		
Endurance			
DWPD (Random/ Sequential Workload)****	10/25 DWPD	25/33 DWPD	50/50 DWPD
Power			
Vcc	5V, - 5%/+10%		
Active (Typ)	7W		
Environmental			
Shock	1000 g half-sine, 0.5 msec, 3 shocks along each axis, X, Y, Z, in each direction		
Vibration	2.17 g rms, 7-800 Hz		
Operating Temperature	0° C to 70° C (internal)		
Storage Temperature	-40° C to 90° C		
Humidity	5% to 95%, non-condensing, relative humidity		
Altitude	5486.4 m [18,000 ft]		
Mechanical			
Length	100.20 mm		
Width	69.85 mm		
Height	9.5 mm/15 mm[3]		

(1) Based on a 128KB transfer rate, using Oakgate SVF exerciser
(2) Based on 4KB transfer rate using Oakgate SVG exerciser
(3) Height applies to 1.6TB Optimus, 1.2TB Optimus Ultra, and 800GB Optimus Ultra+

Optimus 2.5" SAS SSDs Ordering Information	Optimus Ultra 2.5" SAS SSDs Ordering Information	Optimus Ultra+ 2.5" SAS SSDs Ordering Information
Capacity & Part Number		
(200GB) SDLKAE6M-200G-5CA1	(150GB) SDLKAEGW-150G-5CA1	(100GB) SDLKAE9W-100G-5CA1
(400GB) SDLKAD6M-400G-5CA1	(300GB) SDLKADGW-300G-5CA1	(200GB) SDLKAE9W-200G-5CA1
(800GB) SDLKAC6M-800G-5CA1	(600GB) SDLKACGW-600G-5CA1	(400GB) SDLKAD9W-400G-5CA1
(1.6TB) SDLLAC6M-016T-5CA1	(1.2TB) SDLLACGW-012T-5CA1	(800GB) SDLLAC9W-800G-5CA1

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For more information, please visit:
www.sandisk.com/enterprise

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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