Optimus Ascend™ SAS SSDs

Outstanding performance for a wide variety of mixed-use application workloads

**Features**
- 10 DWPD (random workload)****
- 5 Year Warranty****
- Data Integrity – BER 10¹⁸
- FlashGuard – Enhances Flash Endurance
- DataGuard – Ensures Data Integrity
- EverGuard – Reliable 24x7 operation

**Mixed-Use Application Workloads**
- On-Line Transaction Processing (OLTP) Databases
- Financial Transactions
- E-Commerce
- E-Mail/Messaging
- Virtual Desktop
- Collaboration

OEMs and IT managers no longer have to compromise on performance, endurance and reliability to obtain affordability. Optimus Ascend™ SSDs from SanDisk® offer all four in a single package through a combination of unique and innovative IP, and the use of enterprise Multi-Level Cell (eMLC) flash. SanDisk’s newest generation of 19nm eMLC 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 mixed-use applications with an I/O pattern designed predominately for workloads such as On-Line Transaction Processing (OLTP) Databases, E-mail/Messaging, Virtual Desktop, and Collaboration where performance and high-availability are required.

Available in capacities of 200GB - 1.6TB*, Optimus Ascend SSDs provide random read/write performance up to 95K/40K IOPS and sequential read/write data transfer rates of up to 550/540 MB/s**. Optimus Ascend SSDs provide dual port support with 1GB/s Read/800 MB/s Write in active/active operation for sequential read/write performance. Optimus Ascend SSDs provide 10 random DWPD****. Optimus Ascend SSDs have a 5 year warranty****.

**Guardian Technology™ Platform**

Optimus Ascend SAS SSDs are 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 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 Ascend SAS SSDs are designed for I/O intensive, mission-critical, 24/7 applications.
**Optimus Ascend™ 2.5" SAS SSDs**

**Performance**
- **Interface**: 6Gb/s SAS
- **Interface Ports**: Dual
- **Sequential Read/Write (MB/s)**: 200GB: Up to 550/380 MB/s per port/400GB - 1.6TB: Up to 550/540 MB/s / 1 GB/s Read/800 MB/s Write in Active/Active operation
- **Random Read/Write (IOPs)**: Up to 95K/40K

**Capacity**
- **19nm eMLC User Capacities**: 200GB, 400GB, 800GB, and 1.6TB

**Reliability**
- **Sector Sizes**: 512, 520, 528 byte
- **Data Reliability (BER)**: 1 unrecoverable error in 10^18 bits read
- **MTBF**: 2.5 Million Hours

**Data Fail Recovery**
- F.R.A.M.E. (Flexible Redundant Array of Memory Elements)

**Power Fail Recovery**
- EverGuard Technology: Backup Power Circuitry

**Data Path Protection**
- DataGuard Technology

**Warranty**
- The lesser of 5 years or maximum endurance used

**Endurance**
- **DWPD (Random Workload)**: 10 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

Specifications subject to change without notice.

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