Fusion ioMemory™ SX300 PCIe Application Accelerators

Achieve cost-effective, scalable, high performance for I/O intensive applications

Key Benefits

- High Performance and Superior Reliability
- Up to 2x the performance over the previous ioDrive®2 PCIe card
- Ultra-low latency for demanding transactional based applications
- High performance for real-time business intelligence
- Sits close to the CPU for high performance and performance densities for more
- VMs per server, accelerated database/ data mining and real-time business intelligence
- Now available with FlashSoft® Software as a Caching Bundle

Read-Intensive Application Workloads

- Virtualization
- Virtual Desktop Infrastructure
- Web Hosting
- Data Mining
- Seismic Data Processing
- Content Caching
- 3D Animation
- CAD/CAM

Introducing World Class Flash Memory

The Fusion ioMemory SX300 PCIe application accelerator offers a scalable and high capacity solution for ultimate application performance. The Fusion ioMemory SX300 PCIe series provides a cost-effective solution for application workloads that include: virtualization, virtual desktop infrastructure, web hosting, data mining, seismic data processing, content caching, 3D Animation and CAD/CAM.

An Advanced Flash Technology

Available in capacities from 1.25TB - 6.4TB* with ultra-low 92/15µs read/write data access latency, superior reliability with an UBER 10^{-20}, outstanding random read/ write performance of up to 345K/385K IOPS. The Fusion ioMemory SX300 PCIe application accelerator provides an updated VSL® (virtual storage layer) that delivers direct memory access, minimizes latency and maximizes application throughput.

Inherent Data Integrity Build on a Rich Backbone of Reliability

The Fusion ioMemory SX300 PCIe device has a trusted architecture. SanDisk® delivers on the one important metric of storage memory which is ultra-low latency, not just bandwidth and operations per second. SanDisk has built-in self-healing features to all our Fusion ioMemory PCIe application accelerators, delivering superior reliability for an UBER of 10^{-20}. With over 7,000 customers and 250,000 units sold, this third generation of PCIe devices are designed to provide customers with the piece of mind that these products will perform in the field as intended.

Dramatically Reduced Total Cost of Ownership (TCO)

With the significant performance improvements, the Fusion ioMemory SX300 PCIe application accelerator provides over traditional hard disk drive infrastructures, customers can reduce infrastructure, increase the number of virtual machines, and improve overall system efficiency. These improvements provide savings in capital expenditures (CapEx) and operating expenditures (OpEx) which include reduced application licensing fees and savings related to space, cooling costs, and energy use.

SanDisk®
a Western Digital brand

Model Number	SX300-1300	SX300-1600	SX300-3200	SX300-6400
Usable MLC Capacity*	1.25TB	1.6TB	3.2TB	6.4TB
Read Bandwidth (GB/s)	2.7	2.7	2.7	2.7
Write Bandwidth (GB/s)**	1.5	1.7	2.2	2.1
Ran. Read IOPS (4K)	196,000	235,000	345,000	285,000
Ran. Write IOPS (4K)	330,000	375,000	385,000	385,000
Read Access Latency	92μs	92μs	92μs	92μs
Write Access Latency	15μs	15μs	15μs	15μs
Bus Interface	Gen. 2, x8			
Endurance (PBW)	4	5.5	11	22
Reliability (UBER)	10^{-20}			
Weight		5.2 ounces		7.25 ounces
Form Factor		Half Height, Half Length		Full Height, Half Length
Warranty	Limited 5 year warranty or maximum endurance used			
Operating Systems	Microsoft Windows: Windows Server Linux: RHEL; SLES; OEL; CentOS; Debian Squeeze; Ubuntu UNIX: Solaris Hypervisors: VMware ESXi, Windows Server 2012 with Hyper-V, Windows Server 2012 R2 with Hyper-V, Oracle VM 3.2.7 and up For current compatibility please visit http://support.fusionio.com/kb/vsl-software-and-operating-system-compatibility-matrix/			

Environmental Specifications

		Min	Max
Temperature[1]	Operational	0°C	55°C
	Non-operational	-40°C	70°C
Power Requirements			25 W
Air Flow (LFM)[2]		300	
Humidity (%)	Non-condensing	5	95
Altitude (ft)	Operational	-1,000	10,000
	Non-operational	-1,000	30,000

Agency

US/Canada	FCC Title 47, Part 15 Subpart B, Class A, CAN ICES-3 (A) NMB-3 (A)
Europe/CE	EN 55022: 2010, EN 61000-3-2: 2006 plus A1:2009 & A2:2009, EN 61000-3-3: 2008, EN 55024: 2010
Japan/VCCI	VCCI V-3/2013.04 ClassA & EN 55022 (2010) Class A, ANSI C63.4: 2009
Taiwan	BSMI CNS 13438: 2006 Class A, EN 55022 (2006)A1 (2007) Class A
Australia/New Zealand	AS/NZS CISPR 22: 2009 plus A1:2010
Korea	MSIP-REM-FIO-ioMemoryPX600
Low Voltage Directive Testing	Directive: 2006/95/EC, EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 and IEC 60950-1:2005 + A1:2009
RoHS	DIRECTIVE 2011/65/EU
REACH	Regulation (EC) No 1907/2006
WEEE	Directive 2002/96/EC

Fusion ioMemory SX300 PCIe Application Accelerator Ordering Information

Part Number	Capacity
SDFACAMOS-1T30-SF1	1.25TB
SDFACAMOS-1T60-SF1	1.6TB
SDFACAMOS-3T20-SF1	3.2TB
SDFACCMOS-6T40-SF1	6.4TB

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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.

Specifications subject to change without notice. Performance results are based on internal testing and use. Results and performance may vary according to configurations and systems, including drive capacity, system architecture and applications.
* 1TB = 1,000,000,000,000 bytes. Actual user capacity less.
** Write BW achieved with optional high power mode. Maximum write bandwidth performance of 1.6 GB/s achievable within 25 W power limit. Performance may vary based on host device. 1GB = 1,000,000,000 bytes. X = 150 KB/sec.
1 Temperature derated 1°C per 1000 ft elevation above sea level
2 Products are designed for server platforms only and relies on 300 LFM (min) airflow, which is required for normal operation in server environments.