



s1122 PCIe

Highlights

- Industry-leading endurance in a PCIe flash card—up to 24 drive writes per day (DW/D)
- Up to 2TB capacity in a HH-HL PCIe flash card
- Sustained, predictable performance

Applications/Environments

- Enterprise-class servers and high performance computing
- Suitable for the most demanding scale-out database workloads
- Online Transaction Processing (OLTP) and Online Analytical Processing (OLAP)
- Financial, high frequency trading
- Virtual Desktop Infrastructure (VDI)
- Space and/or power constrained environments
- Database accelerators
- Big data analytics



2000GB, 1600GB, 1000GB and 800GB
MLC | HH-HL | PCIe 2.0

Enterprise-Class Solid-State Device

When today's "new normal" requires doing more with less, the HGST s1122 PCIe accelerator more than meets the challenge. Enterprise data centers and cloud computing environments demand high density, high-performance servers to ensure consistent levels of application performance and compliance with Service Level Agreements.

HGST's s1122 PCIe accelerator improves access to data in server and storage applications—including virtualized environments, Web serving and hosting, and database deployments such as SQL Server, Oracle and In-Memory Computing. This accelerates performance in enterprise data centers and cloud computing applications, as well as Web 2.0 and social media environments. Built on fourth-generation SSD controller technology, the s1122 PCIe accelerator is an enterprise-class solution that delivers low latency, high performance and enterprise-class reliability.

Advanced Endurance and Data Protection Technologies

In addition to its low latency and high-performance capabilities, the s1122 PCIe accelerator integrates HGST's industry-leading CellCare®, Secure Array of Flash Elements™ (SAFE) and PowerSafe® technologies into an ASIC-based SSD controller to provide an unparalleled combination of endurance and data protection for mission-critical enterprise and cloud computing applications.

Maximize Server Consolidation, Minimize Data Center Sprawl

The s1122 PCIe accelerator is custom-engineered to meet the demands of enterprise data centers and cloud computing applications, delivering higher transaction rates that support demanding applications and designs while reducing footprint and power consumption. Time is money in these service-intensive environments, and the s1122 PCIe accelerator speeds up server performance without consuming server CPU and memory resources. This enables data centers to deploy fewer and lower cost servers for enhanced application-level acceleration and data center consolidation.

HGST Quality and Service

HGST's s1122 family extends the company's long-standing tradition of performance and reliability leadership. A balanced combination of new and proven technologies enables high reliability and availability to customer data.

HGST drives are backed by an array of technical support and services, which may include customer and integration assistance. HGST is dedicated to providing a complete portfolio of SSD/HDD solutions to satisfy today's monumental computing needs.



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Specifications

Model / Part No.	S1122E800M4 / OT00020 S1122E1000M4 / OT00003 S1122E1600M4 / OT00009 S1122E2000M4 / OT00015			
Configuration				
Interface	PCIe 2.0 (x4)			
Form factor	Half-Height, Half-Length (HH-HL) add-in card			
Performance ¹				
Capacities (GB ²)	800	1000	1600	2000
Read throughput (max MB/s, sequential 64K)	1,500	1,500	1,500	1,500
Write throughput (max MB/s, sequential 64K)	1,000	1,000	1,000	1,000
Read IOPS (max IOPS, random 4K)	81,000	83,000	79,000	79,000
Write IOPS (max IOPS, random 4K)	49,000	49,000	26,000	28,000
Peak write IOPS (max IOPS, random 4k)	52,000	55,000	39,000	48,000
Mixed IOPS (75/25 R/W, random 4k)	51,000	54,000	37,000	41,000
Peak mixed IOPS (75/25 R/W, random 4k)	50,000	54,000	41,000	50,000
Read IOPS (max IOPS, random 8k)	63,000	63,000	62,000	62,000
Write IOPS (max IOPS, random 8k)	57,000	58,000	29,000	31,000
Latency 512B (µs)	18	29	31	33
Endurance				
Via CellCare [®]	24 DW/D	24 DW/D	12 DW/D	12 DW/D
Warranty				
Warranty	5 years			
Physical				
Dimensions, without bracket (mm)	167.65 x 68.9 x 18.71			
Weight (g)	176			

Environmental

Power consumption (max)	< 25 Watts
Operating temperature	0° to 45°C
Non-operating temperature	-40° to 70°C
JEDEC compliance	3-month retention at 40°C at EOL

Operating Systems

Linux	RHEL 5/6, SLES 10/11, CentOS 5/6, Oracle EL 5/6, Debian 4/5/6, Ubuntu 8/9/10/11/12, Fedora Core 12-18, Open SUSE 11, 12
Windows	64-Bit Microsoft Server 2008 R2 SP1, Windows 2K-8 R2, Hyper-V core server, Windows 2012 Server, Windows 2012 Hyper-V core server
VMware	ESXi 5.X

Software

HGST Device Manager (HDM)	CLI and GUI interface
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¹All performance measurements are in full sustained mode except where noted as "Peak."

²One gigabyte (GB) is equal to one billion bytes, one terabyte (TB) is equal to 1,000GB (one trillion bytes), and one petabyte (PB) is equal to 1,000TB (one quadrillion bytes) when referring to solid-state drive or hard drive capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the drive, the computer's operating system, and other factors.

Agency Certifications

USA/Canada | UL 60950-1, 2nd Edition & CSA C22.2, EN60950-1:2006 + A1:2010 + A11:2009 + A12:2011; cULus; FCC Part 15 Subpart B Section 15.107/109/ANSI C63.4 (2009), Class B; ICES-003 Issue 5, Class B; EN 55022, Radiated & Conducted Emissions Class B; EN 55024, Radiated Immunity & ESD

Europe | CAN/CSA-C22.2 No. 60950-1/A1:2011; EN60950-1/A12:2011; cTUVus

Japan | VCCI - V-3/2012.04 Class B

Taiwan | BSMI CNS 13438

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