Overview

Models

SATA 3 GB/second Interface Drives
Intel® Pro 1500 180 GB SATA SED Opal1 Solid State Drive (SSD)   G4M04AA

HP 128 GB Solid State Drive (SSD)   QV063AA

HP 128 GB SED Opal 2 Solid State Drive (SSD)   G1K24AA

Introduction

Boost the performance and robustness of your HP Business Desktop PC with a Solid State Drive.

The HP 128 GB and Intel® SSD Pro 1500, 180 GB Solid State, and HP 128Gb SED Opal 2 Solid State Drives are drop-in replacements for the 2.5-inch or 3.5-inch (with bracket) hard disk drive of some HP Business/HP Compaq Business Desktop PCs, providing many performance and durability improvements over traditional Hard Disk Drive (HDD) technology.

With no moving parts, these drives do not need to spin up or mechanically seek files in the way that a conventional hard disk drives does. The result is a quiet, cool, highly rugged storage solution that can offer faster system responsiveness. These drive characteristics enable significant improvement in PCMark05 v120 - hard drive performance over a standard 3.5-inch hard disk drive while significantly improving boot-up, shut down and application loading times as well as overall application responsiveness.
The Intel SSD Pro 1500 Series delivers the latest Intel storage solution with new low power features. The next generation Intel SSD continues to provide high performance expected for hard drive SATA-based computers.

The industry-standard 2.5-inch form factor enables interchangeability with existing hard disk drives (HDDs) and native SATA HDD drop-in. If you're configuring a new system or you just want to extend the lifecycle of an existing system, Solid State Drives are one of the best performance upgrades you can make.

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. Actual formatted capacity is less. Up to 16 GB (for Windows 7) and 30 GB (for Windows 8.1) of system disk is reserved for the system recovery software.

Performance

SATA 6GB/second Interface Drives
The 180 GB Intel® Pro Solid State Drive achieves sequential read rates of up to 540-megabyte (MB)/sec and sequential write rates of up to 490-megabytes (MB)/sec.

The HP 128 GB SSD achieves sequential read rates of up to 450-megabyte (MB)/sec and sequential write rates of up to 260-megabytes (MB)/sec.

The HP 128Gb SED Opal 2 Solid State Drive achieves sequential read rates of up to 520-megabyte (MB)/sec and sequential write rates of up to 340-megabytes (MB)/sec.

Overview

Benefits

The Solid State Drives bring these powerful benefits for storage solution:

- Take the worry out of storing your data with a hard drive with no moving parts
- Get faster transfer speeds and higher cell endurance with Intel NAND flash memory Multi Level Cell (MLC) components
- Significantly improve boot up, shut down and application loading times.
- Improved protocol for enhanced data integrity
- Performance increases: For example, up to 6 GB/s maximum external (burst) data transfer rate for the 128 GB SSD drive
- Native Command Queuing allows the hard drive to have several write or read commands outstanding at the same time
- Supports the ATA Data Set Management Command (Trim Attribute) to help maintain your SSDs performance at "fresh-out-of-the-box" levels, and is specifically designed to run with Microsoft Windows 7*.
- Includes installation kit that contains: 3.5" desktop drive bay adapter to 2.5" SSD adapter bracket, screws, installation guide, and warranty documentation.
- Blazing fast responsiveness and performance
- Solid, reliable, silent operation
- Low power consumption

Compatibility

The Intel® Pro 1500 180GB SATA SED Opal1 Solid State Drive (SSD) is compatible with the HP ProDesk 400 G1 MT, HP ProDesk 400 G1 SFF, HP ProDesk 405 G1 MT, HP ProDesk 490 G1 MT, HP ProDesk 600 G1 TWR, HP Pro Desk 600 G1 SFF, HP EliteDesk 800 G1 TWR, HP EliteDesk 800 G1 SFF, HP EliteDesk 800 G1 USDT, HP EliteDesk 800 G1 DM (Mini), HP EliteDesk 800 G1 AiO, HP Compaq 6305 Pro MT, HP Compaq 6305 Pro SFF..

The HP 128 GB Solid State Drive is compatible with the HP Compaq 6000 Pro MT, HP Compaq 6000 Pro SFF, HP Compaq 4300 Pro SFF, HP Compaq 4300 Pro AiO, HP Compaq 6005 Pro MT, HP Compaq 6005 Pro SFF, HP Compaq 6005 Pro USDT, HP Compaq 6200 Pro MT, HP Compaq 6200 Pro SFF, HP Compaq 6300 Pro MT, HP Compaq 6300 Pro SFF, HP Compaq 6300 Pro AiO, HP Compaq 8200 Elite SFF, HP Compaq 8200 Elite CMT, HP Compaq 8200 Elite MT, HP Compaq 8200 Elite USDT, HP Compaq 8300 Elite SFF, HP Compaq 8300 Elite CMT, HP Compaq 8300 Elite MT, HP Compaq 8300 Elite USDT, HP Compaq 8300 Pro AiO, HP Compaq 6305 Pro MT, HP Compaq 6305 Pro SFF, HP TouchSmart 9300 Elite, HP rp5800 Retail System, HP ap5000 Retail System, and HP RP7 Retail System.

The HP 128Gb SED Opal 2 Solid State Drive is compatible with the HP ProOne 400 G1 AIO Touch, HP ProOne 400 G1 AIO Non-Touch, HP ProDesk 400 G1 MT, HP ProDesk SFF, HP ProDesk 405 MT, HP ProDesk 490 G1 MT, HP ProDesk 600 G1 TWR, HP ProDesk 600 G1 SFF, HP ProDesk 400 G1 DM (Mini), HP ProOne 600 G1 AIO, HP EliteDesk 800 G1 TWR, HP EliteDesk 800 G1 SFF, HP EliteDesk 800 G1 USDT, HP EliteDesk 800 G1 DM (Mini), HP EliteOne 800 G1 AIO, HP EliteOne 800 AIO 21.5" Non-Touch.

NOTE: Please check this product's web page on HP.com for current compatibility information.

NOTE: Not all solid state drive models are available in all regions.

NOTE: Use of HP System Software Recovery Disks (SSRD) is not supported on 80GB or 128GB SSD models due to minimum image size requirements (>=140GB) for the SSRD.

Operating Systems supported: Windows 8.1 Pro, Windows 8, Windows 8 Pro, Windows 8, and all 32-bit and 64-bit versions of Microsoft Windows 7*, Vista** and XP*. No driver is required for this device. Native support is provided by the operating system.

|* This system may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality. See http://www.microsoft.com/windows/windows-7/ for details.

** Certain Windows Vista product features require advanced or additional hardware. Windows Vista Upgrade Advisor can help you determine which features of Windows Vista will run on your computer. To download the tool, visit:

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http://www.windowsvista.com/upgradeadvisor. For Windows Vista system requirements, visit:
http://www.windowsvista.com/systemrequirements.

Service and Support

Your Option Limited Warranty is a one (1) year (HP Option Limited Warranty Period) parts replacement warranty on any HP-branded or Compaq-branded options (HP Options). If your HP Option is installed in an HP Hardware Product, HP may provide warranty service either for the HP Option Limited Warranty Period or the remaining Limited Warranty Period of the HP Hardware Product in which the HP Option is being installed, whichever period is the longer but not to exceed three (3) years from the date you purchased the HP Option.

Technical Specifications

Intel® Pro 1500 180GB SATA SED Opal1 Solid State Drive (SSD)	Unformatted Capacity*	180GB	
	Architecture	Multi Level Cell (MLC) NAND Flash	
	Interface type	SATA 6GB/sec	
	Dimensions-external (W x H x D)	2.75 x 0.276 x 3.96 in (6.985 x 0.7 x 10.05 cm)	
	Weight	Up to 0.17 lb (78 g) max	
	Bandwidth Performance	Sustained Sequential Read	Up to 540 MB/s
		Sustained Sequential Write	Up to 490 MB/s
	Bandwidth Performance	Random Read (4KB)	up to 41K IOPs
		Random Write (4KB)	up to 80K IOPs
	Latency	Read	80µs (TYP)
		Write	85µs (TYP)
	Power	DC power requirement	Min 4.5 V; Max 5.5 V
		Total power consumption	195 mW (Active) ; 125 mW; (Idle)
	Useful drive life	MTBF	1.2 million device hours**
	Environmental (all conditions, non-condensing)	Temperature (operating)	32° to 158° F (0° to 70° C)
		Relative Humidity (operating)	5% to 95%
		Shock (operating)	1,500 G/0.5 msec
	Regulations	UL, CE, C-Tick, BSMI, KCC, Microsoft, WHCK, VCCI, SATA-IO, RoHS	
	Option kit contents	Intel® Pro 1500 180GB SATA SED Opal1 Solid State Drive, documentation, 3.5-inch bay adapter bracket, 3.5-inch bay adapter bracket screws, SATA cable	

* For solid state disk drives, GB means 1 billion bytes. 128GB is the unformatted capacity of this drive before a portion of the drive is reserved for flash management features. Actual capacity will vary by content
** The product achieves a mean time between failure (MTBF) based on population statistics not relevant to individual units.

QuickSpecs

Technical Specifications

128 GB Solid State Drive			
	Unformatted Capacity*	128 GB	
	Architecture	Multi Level Cell (MLC) NAND Flash	
	Interface type	SATA 6GB/sec	
	Dimensions-external (W x H x D)	2.75 x 0.276 x 3.96 in (6.985 x 0.7 x 10.05 cm)	
	Weight	0.16 lb (73 g) max	
	Bandwidth Performance	**Sustained Sequential Read**	Up to 450 MB/s
		Sustained Sequential Write	Up to 260 MB/s
	Bandwidth Performance	**Random Read (4KB)**	up to 46K IOPs
		Random Write (4KB)	up to 56K IOPs
	Latency	**Read**	55µs (TYP)
		Write	55µs (TYP)
	Power	**DC power requirement**	Min 4.5 V; Max 5.5 V
		Total power consumption	160 mW (Active) ; <85 mW; (Idle)
	Useful drive life	**MTBF**	1.2 million device hours**
	Environmental (all conditions, non-condensing)	**Temperature** (operating)	32° to 158° F (0° to 70° C)
		Relative Humidity (operating)	5% to 95%
		Shock (operating)	1,500 G/1.0 msec
	Regulations	UL, CSA, EN 60950-2000, CISPR Pub 22 Class B, CNS 13438, AS/NZS CISPR 22:2002 Class B, Korea KCC, CE Mark	
	Option kit contents	HP 128 GB Solid State Drive, documentation, 3.5-inch bay adapter bracket, 3.5-inch bay adapter bracket screws, SATA cable	

* For solid state disk drives, GB means 1 billion bytes. 128GB is the unformatted capacity of this drive before a portion of the drive is reserved for flash management features. Actual capacity will vary by content

** The product achieves a mean time between failure (MTBF) based on population statistics not relevant to individual units.

Technical Specifications

HP 128Gb SED Opal 2 Solid State Drive	Unformatted Capacity*	128 GB	
	Architecture	NAND Flash, Advanced Encryption Standard 256 (AES) engine, TCG Opal compliant	
	Interface type	SATA 6GB/sec	
	Dimensions-external (W x H x D)	2.75 x 0.267 x 3.94 in (6.985 x 0.68 x 10.02 cm)	
	Weight	0.12 lb (55 g) max	
	Bandwidth Performance	Sustained Sequential Read	Up to 520 MB/s
		Sustained Sequential Write	Up to 340 MB/s
	Power Consumption	Active*	0.78A / 3.891W
		Idle**	0.005A / 0.026W
		* Active power is measured during execution of IOMeter 2006 in Windows7 ** Idle power is measured on DOS Idle status with DIPM on	
	Useful drive life	MTBF	1.5 million device hours
	Environmental (all conditions, non-condensing)	Temperature (operating)	32° to 158° F (0° to 70° C)
		Relative Humidity (operating)	5% to 95%
		Shock (operating)	1,500 G / 0.5 ms Half Sine Wave
	Regulations	UL, CSA, EN 60950-2000, CISPR Pub 22 Class B, CNS 13438, AS/NZS CISPR 22:2002 Class B, Korea KCC, CE Mark	
	Option kit contents	HP 128Gb SED Opal 2 Solid State Drive, documentation, 3.5-inch bay adapter bracket, 3.5-inch bay adapter bracket screws, SATA cable	

* For solid state disk drives, GB means 1 billion bytes. 128GB is the unformatted capacity of this drive before a portion of the drive is reserved for flash management features. Actual capacity will vary by content