Desktop SSHD

Data Sheet

Performance - Capacity. Affordable Price.

- The first solid state hybrid drive (SSHD) in a 3.5-inch form factor
- Boots up and performs like an SSD[1]
- SATA 6Gb/s with NCQ for interface speed
- Faster than a traditional HDD[1]
- All-in-one design for simplicity and ease of installation
- Installs and operates like a standard hard drive: cross-platform, no drivers or additional software required
- Massive 1TB, 2TB and 4TB capacities combined with SSD-like performance[1]
- Backed by a 3-year limited warranty

Best-fit Applications

- Desktop PCs
- Workstations
- High-performance direct-attached storage (DAS) devices

[1] Performance may vary depending on user's hardware configuration and operating system.

Desktop SSHD

Specifications	4TB[1]	2TB[1]	1TB[1]
Model Number	ST4000DX001	ST2000DX001	ST1000DX001
Interface	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ
Performance			
NAND Type/Size	MLC/8GB	MLC/8GB	MLC/8GB
DRAM Cache (MB)	64	64	64
SATA Transfer Rates Supported (Gb/s)	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5
Seek Average, Read (ms)	<12	<9.5	<8.5
Seek Average, Write (ms)	<12	<9.5	<8.5
Average Data Rate, Read, Avg All Zones (MB/s)	146	156	156
Average Data Rate From NAND Media (MB/s)	190	190	190
Max Sustained Data Rate, OD Read (MB/s)	180	210	210
Configuration/Organisation			
Heads/Discs	8/4	4/2	2/1
Bytes per Sector	4,096	4,096	4,096
Reliability/Data Integrity			
Load/Unload Cycles	300,000	300,000	300,000
Non-recoverable Read Errors per Bits Read, Max	1 per 10^{14}	1 per 10^{14}	1 per 10^{14}
Annualised Failure Rate (AFR)	<1%	<1%	<1%
Power Management			
Power (W)			
Operating, Typical	7.5	6.7	5.9
Idle2, Typical	—	4.5	3.36
Idling, Typical	6.2	—	—
Standby Mode	0.75	0.75	0.63
Sleep Mode	0.75	0.75	0.63
Environmental			
Temperature (°C)			
Operating	0 to 60	0 to 60	0 to 60
Non-operating	−40 to 70	−40 to 70	−40 to 70
Physical			
Height (in/mm)	1.028/26.11	1.028/26.11	0.782/19.87
Width (in/mm)	4.0/101.6	4.0/101.6	4.0/101.6
Depth (in/mm)	5.787/146.99	5.787/146.99	5.787/146.99
Weight (lb/g)	1.345/610	1.18/535	0.88/400
Carton Unit Quantity	20	20	25
Cartons per Pallet	40	40	40
Cartons per Layer	8	8	8

[1] One gigabyte, or GB, equals one billion bytes; and one terabyte, or TB, equals one trillion bytes when referring to drive capacity.

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