Enterprise SATA SSD

Data Sheet

A Class Above Client SSDs.

- Delivers the highest IOPS/watt to improve system performance and reduce power and cooling costs for performance-hungry data center and cloud applications
- Fast, consistent performance and low latency over the warranty period of the drive
- Helps reduce performance gaps between storage I/O and CPU operations
- Provides up to 480GB user capacity
- Helps safeguard data against unexpected power loss
- Helps protect data from undetected, unintentional corruption (silent errors)
- One drive—many use cases

Best-Fit Applications

- Performance-hungry, read-intensive, data center applications, such as data indexing, edge caching, data streaming, or gaming/software delivery
- Cloud system builders, cloud service providers, content delivery networks and virtualized enterprise environments that demand the highest IOPS/W value
- Green IT and TCO reduction initiatives
- Power- and space-constrained data centers

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Beyond a client SSD, the Seagate® Enterprise SATA SSD drive leverages proven enterprise expertise, an enterprise-tuned feature set and manufacturing excellence to deliver high levels of data integrity, manageability, interoperability and support. Optimized for NAND technology, Seagate multi-layered error recovery technology with advanced error detection and correction encoding helps ensure data integrity. Seagate conducts extensive, rigorous failure condition and interoperability testing to deliver the quality and interoperability expected of a true enterprise-class SSD. And of course, this drive is backed by industry-leading support, deep supply chain relationships and global partner networks.

Specifications	480GB[1]	400GB[1]	240GB[1]	200GB[1]	120GB[1]	100GB[1]
Model Number	ST480FN0021	ST400FN0021	ST240FN0021	ST200FN0021	ST120FN0021	ST100FN0021
Interface Options	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
NAND Flash Type	MLC	MLC	MLC	MLC	MLC	MLC
Performance						
Sustained Data Transfer Rate (MB/s)	520	520	520	520	520	520
I/O Data Transfer Rate, Max (MB/s)	600	600	600	600	600	600
Sequential Read/Write Command Rate (MB/s) Peak, 128KB	520/400	520/400	520/400	520/400	520/300	520/300
Random Read/Write Command Rate (KIOPS) Peak, 4KB	85/11	85/30	85/11	85/30	80/8	80/20
Configuration/Reliability						
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E16	1 per 10E16	1 per 10E16	1 per 10E16	1 per 10E16	1 per 10E16
Annualized Failure Rate (AFR)	0.58%	0.58%	0.58%	0.58%	0.58%	0.58%
Total Drive Writes Over Warranty Period (JEDEC Workload, All LBAs Allocated)	730	2700	560	2600	200	2200
Limited Warranty	Usage-based	Usage-based	Usage-based	Usage-based	Usage-based	Usage-based
Power Management						
+5V Max Start Current (A)	0.5	0.5	0.5	0.5	0.5	0.5
Average Sleep Power (W)	0.5	0.5	0.5	0.5	0.5	0.5
Average Idle Power (W)	1.25	1.25	1.05	1.05	1.05	1.05
Average Operating Power (W)	2.8	2.8	2.8	2.8	2.8	2.8
Environmental						
Internal Operating Temperature (C°)	0 to 70	0 to 70	0 to 70	0 to 70	0 to 70	0 to 70
Nonoperating Temperature (C°)	–40 to 75	–40 to 75	–40 to 75	–40 to 75	–40 to 75	–40 to 75
Temperature Change Rate/Hr, Max (C°)	20	20	20	20	20	20
Relative Humidity, Noncondensing (%)	5 to 95	5 to 95	5 to 95	5 to 95	5 to 95	5 to 95
Shock, 0.5ms (Gs)	1000	1000	1000	1000	1000	1000
Vibration, 20Hz to 2000Hz (Grms)	11.08	11.08	11.08	11.08	11.08	11.08
Physical						
Height (mm/in)[2]	7.0/0.276	7.0/0.276	7.0/0.276	7.0/0.276	7.0/0.276	7.0/0.276
Width (mm/in)[2]	70.10/2.76	70.10/2.76	70.10/2.76	70.10/2.76	70.10/2.76	70.10/2.76
Depth (mm/in)[2]	100.45/3.955	100.45/3.955	100.45/3.955	100.45/3.955	100.45/3.955	100.45/3.955
Weight (g/lb)	100/0.220	100/0.220	100/0.220	100/0.220	100/0.220	100/0.220
Carton Unit Quantity	20	20	20	20	20	20
Cartons per Pallet	45	45	45	45	45	45
Cartons per Layer	9	9	9	9	9	9

1 One gigabyte, or GB, equals one billion bytes when referring to drive capacity.

2 The drive physical dimensions conform to the Small Form Factor Standard (SFF-8201) found at www.sffcommittee.org. For connector-related dimensions, see SFF-8223.

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