

Data Sheet

## Pulsar<sup>®</sup> XT.2

Ultimate enterprise SSD performance—from the enterprise storage leader

400, 200 and 100GB solid state drive •  
SLC NAND flash • 6Gb/s SAS

### Key Advantages

- Optimizes customer experience by delivering the consistent high performance needed by real-world, complex, mixed workload enterprise environments
- Provides the drive endurance and data integrity enterprise customers need
- Provides OEMs, system builders and data centers with the high levels of service, support and fulfillment they need for demanding enterprise environments
- Common storage foundation to reduce system complexity and operating overhead
- Standard enterprise 6Gb/s SAS interface for scalability and reliability, avoiding incompatibility across the software stack
- 2.5-inch form factor fits existing HDD slots, no chassis or ecosystem changes are required
- Hotpluggable to avoid unnecessary downtime
- Advanced media-management technology helps protect against unexpected data change or loss
- Optional Self-Encrypting Drive (SED) models (400GB only) help companies be compliant with corporate and federal data security mandates, and helps protect data should the drive be lost, stolen or retired<sup>1</sup>

### Best-Fit Applications

- Tier 0, external storage arrays
- Performance-hungry, write-intensive enterprise applications
- Blade servers, general servers and direct-attached storage (DAS) solutions that crave the advantages of solid state technology
- Enterprise architectures that use auto-tiering solutions



<sup>1</sup> Self-Encrypting Drive models not available in all countries or capacities. Requires TCG-compliant host or controller support.

# Pulsar® XT.2

Ultimate enterprise SSD performance—from the enterprise storage leader



## Consistent, Fast Performance

Data centers need to store and deliver the highest value data quickly, consistently and reliably. The Pulsar XT.2 SSD was designed for complex, mixed workload enterprise environments. It performs background data and media management tasks without impacting end-user performance. The drive delivers the fastest random write performance available in a small form factor, SAS-based SSD, the best balance of random read to random write performance, and the speed that write-intensive, Tier 0 applications need while minimizing time variance between read and write operations.

## Enterprise Class Endurance and Data Integrity

The Pulsar XT.2 SSD can routinely complete over 35 full drive writes per day (up to 25 petabytes written over the life of the device), providing the endurance needed in demanding enterprise environments. It uses advanced media-management techniques to help protect against unexpected data change or loss. It also uses media scanning helps protect against read disturb data errors, and protection information helps ensure data is not unintentionally changed throughout its lifecycle. Power-loss data protection helps ensure data is not lost or inadvertently changed during power loss, and advanced wear-leveling algorithms evenly write across all NAND blocks to maximize the life of the SSD.

## Scalability and Reduced System Complexity

The Pulsar XT.2 SSD uses the industry-standard SAS interface to improve scalability and to avoid software stack compatibility issues. It also uses standard 2.5-inch form factors that hot swap into existing HDD slots to avoid chassis, ecosystem changes and downtime.

## World-Class Service and Support

Seagate has the global presence and enterprise storage ecosystem customer relationships, systems, people and processes to consistently deliver the industry's highest-quality products and support.

Specifications <sup>2</sup>	400GB <sup>1</sup>	200GB <sup>1</sup>	100GB <sup>1</sup>
Model Number	ST400FX0002 ST400FX0012 <sup>3</sup>	ST200FX0002	ST100FX0002
Interface	6Gb/s SAS	6Gb/s SAS	6Gb/s SAS
NAND Flash Type	SLC	SLC	SLC
Product Application Class	Enterprise	Enterprise	Enterprise
Storage Type	SSD	SSD	SSD
<b>Performance</b>			
Sustained Data Transfer Rate (MB/s)	360	360	360
I/O Data Transfer Rate, Max (MB/s)	600	600	600
Sequential Read/Write Command Rate (MB/s) Peak, 128KB	360/300	360/300	360/300
Random Read/Write Command Rate (IOPS) Peak, 4KB	48,000/22,000	48,000/22,000	48,000/22,000
<b>Configuration/Reliability</b>			
Unrecoverable Read Errors per Bits Read	1 LBA per 10E16	1 LBA per 10E16	1 LBA per 10E16
Annualized Failure Rate (AFR)	0.44%	0.44%	0.44%
<b>Power Management</b>			
+12/+5V Start Max Current (A)	0.45/1.15	0.30/1.13	0.31/1.09
Average Idle Power (W)	5.92	4.04	4.04
Average Operating Power (W)	6.67	4.97	4.82
<b>Environmental</b>			
Ambient Temperature (C°)			
Operating	0 to 60	0 to 60	0 to 60
Nonoperating	-40 to 70	-40 to 70	-40 to 70
Temperature Change per Hour, Operating, Max	20	20	20
Temperature Change per Hour, Nonoperating, Max	20	20	20
Shock, 0.5ms (Gs)			
Operating, Max	1000	1000	1000
Nonoperating, Max	1000	1000	1000
Relative Humidity, Noncondensing (%)			
Operating	5 to 95	5 to 95	5 to 95
Nonoperating	5 to 95	5 to 95	5 to 95
Vibration, 20-2000Hz (Grms)			
Operating	16	16	16
Nonoperating	16	16	16
<b>Physical</b>			
Height (in/mm) <sup>4</sup>	0.591/15.00	0.276/7.00	0.276/7.00
Width (in/mm) <sup>4</sup>	2.760/70.10	2.760/70.10	2.760/70.10
Length (in/mm) <sup>4</sup>	3.955/100.45	3.955/100.45	3.955/100.45
Carton Unit Quantity	20	20	20
Cartons per Pallet	45	45	45
Cartons per Layer	9	9	9
<b>Warranty</b>			
Limited Warranty (years)	5	5	5

<sup>1</sup> One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to drive capacity.

<sup>2</sup> Data provided is based on format at 512 bytes.

<sup>3</sup> Self-Encrypting Drive model requires TCG-compliant host or controller support.

<sup>4</sup> These base deck dimensions conform to the Small Form Factor Standard (SFF-8201) found at [www.sffcommittee.org](http://www.sffcommittee.org). For connector-related dimensions, see SFF-8223.

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