

Enterprise Storage

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PX02SM Series Solid State Drive

200 / 400 / 800 / 1600GB*
2.5-Inch / eMLC NAND /SAS

Toshiba's highest performance 2.5" Enterprise-Class Solid State Drive Architecture optimized for mission critical Tier-0 enterprise server & storage applications; features are highlighted by 6G/12G SAS and select models offering industry standard self-encryption technology.

- 24nm eMLC NAND Process
- 12 Gb/sec SAS Interface & 6 Gb/sec SAS Interface
- Capacities up to 1.6TB*
- Quadruple Swing by Code, Layered ECC Approach for Improved Error Correction
- Power Loss Protection



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Leading Innovation >>>



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Standard	PX02SMF020 PX02SMU020	PX02SMF040 PX02SMU040	PX02SMF080 PX02SMU080	PX02SMB160 PX02SMQ160
Security SANITIZE Instant Erase				
Series Overview				
Drive Capacity	200GB*	400GB*	800GB*	1.6TB*
Physical Capacity	256GB*	512GB*	1,024GB*	2,048GB*
NAND Technology	24nm eMLC			
Drive Interface	SAS 6 Gb/sec / 12 Gb/sec, Dual port			
Sector Size	512B, 520B, 528B, 4096B, 4104B, 4160B & 4224B			
Performance				
Sequential Read (Sustained)	900 MB/s**			
Sequential Write (Sustained)	400 MB/s**			
4kB Random Read (Sustained)	120,000 IOPS**			
4kB Random Write (Sustained)	30,000 IOPS**			
Product Life	5 years****			
4KiB Random Read (Sustained)	130,000 IOPS**			
4KiB Random Write (Sustained)	27,000 IOPS**			
4KiB Random 70/30 Read/Write (Sustained)	67,000 IOPS**			
64KiB Sequential Read (Sustained)	1100 MiB/s	1100 MiB/s	1100 MiB/s	1060 MiB/s
64KiB Sequential Write (Sustained)	410 MiB/s			
Power Requirements				
Voltage	5V (+/- 5%), 12V (+/- 5%)			
Power Consumption	<9.0W (+12V + 5%)			
Energy Consumption Efficiency	13.4 kIOPS/W			
Physical Size				
Dimensions (W) x (D) x (H)	69.85 mm x 100 mm x 7.0 mm	69.85 mm x 100 mm x 7.0 mm	69.85 mm x 100 mm x 7.0 mm	69.85 mm x 100 mm x 15.0 mm
Weight	70 g			
Environmental				
Temp - Operating	0° to 55°C			
Temp - Non-Operating	-40° to 70°C (-40° to 158°F)			
Vibration - Operating	9.8 m/s ² (1G)			
Vibration - Non-Operating	49 m/s ² (5G)			
Shock - Operating	9,800 m/s ² (1,000G 0.5ms, ½ sine)			
Shock - Non-Operating	9,800 m/s ² (1,000G 0.5ms, ½ sine)			
Power Loss Protection	YES			
Reliability				
Availability (hrs/day x days/wk)	24 x 7			
Endurance - Total Bytes Written	3.7PB***	7.3PB***	14.6PB***	29.2PB***
Warranty				
Limited Warranty	5 years			

*One Terabyte (1TB) = 1,000 Gigabytes (GB). One Gigabyte (1GB) means 10⁹ = 1,000,000,000 bytes using powers of 10. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB = 2³⁰ = 1,073,741,824 bytes, and therefore shows less storage capacity. Available storage capacity will also be less if the computer includes one or more pre-installed operating systems, pre-installed software applications, or media content. Actual formatted capacity may vary.

**4KB random reads and/or writes

***Warranty for the 200GB capacity point is 5 years or 3.7PB total write capacity, whichever occurs first. Warranty for the 400GB capacity point is 5 years or 7.3PB total write capacity, whichever occurs first. Warranty for the 800GB capacity point is 5 years or 14.6PB total write capacity, whichever occurs first. Warranty for the 1600GB capacity point is 5 years or 29.2PB total write capacity, whichever occurs first.

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