

Controller

PS5012-E12

Interface	NVMe PCIe Gen 3 x 4	
Form Factor	2.5"(U.2)	M.2 2280
NAND Flash	3D TLC	
Capacity ¹	256GB to 8TB	256GB to 2TB
Performance (Up to)^{2,3}		
Sequential Read	3200 MB/s	3000 MB/s
Sequential Write	3000 MB/s	3000 MB/s
4K Random Read	600K IOPS	600K IOPS
4K Random Write	600K IOPS	600K IOPS
Power		
Supply Voltage	12V ± 5%	3.3V ± 5%
Max (Average)	TBD	TBD
Active (Average) ⁴	TBD	TBD
Idle	TBD	TBD
Low Power PS4 (L1.2)	TBD	TBD
Temperature		
Operating	0°C - 70°C -40°C - 85°C	
Non-Operating	-40°C - 85°C	
Advanced Features	<ul style="list-style-type: none"> • Self Encrypting Function(Optional): AES, TCG OPAL, TCG Pyrite • Power Loss Protection(pFail) Circuit (Optional on 2.5") • Intelligent FW Technology on Data Loss Protection : <ol style="list-style-type: none"> 1) Data Loss Protection End-to-End Data Protection (ETEDPP) 2) SmartFlush™ • Intelligent FW Technology on Data Loss Protection : <ol style="list-style-type: none"> 1) SmartECC™: LDPC + RAID ECC 2) Cross Die Bad Block Management 3) SmartFlush™ • Thermal Protection Mechanism • Security Function(Optional): Write Protect, Quick Erase, Data Destroy 	

¹ 1GB = 1,000,000,000 bytes

² 1MB/s = 1,000,000 bytes / second

³ Performance is based on Crystal Disk Mark 6.0.0, test size 1GiB, and test drive set as secondary

⁴ Measured with MobileMark 2014