

## Controller

## PS5012-E12

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

<sup>1</sup> 1GB = 1,000,000,000 bytes

<sup>2</sup> 1MB/s = 1,000,000 bytes / second

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

<sup>4</sup> Measured with MobileMark 2014