

PS5018-E18

THE SUCCESSOR OF REVOLUTIONARY E16



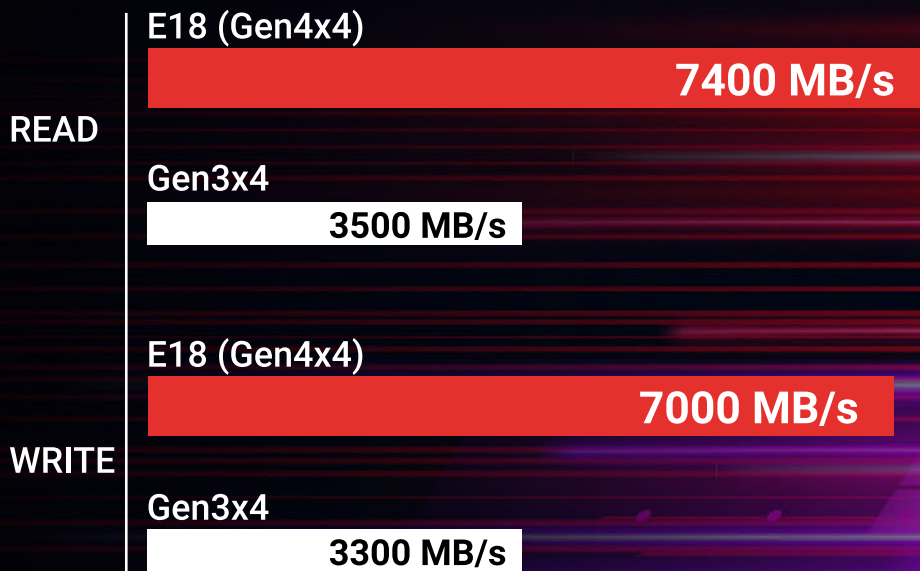
We Define the Evolution

In 2019 Phison introduced the industry's first consumer-grade Gen 4x4 NVMe SSD Controller (the revolutionary [PS5016-E16](#)), becoming the industry leader in high-performance computing for gaming, 5G, and other bandwidth-hungry applications seemingly overnight. Today we continue our tradition of breaking boundaries with the all-new PS5018-E18 second-generation PCIe controller.

The E18 is the only solution on the market to break the 7GB/s barrier for both read and write access with superior power efficiency. Your device stays cool even while running the most blazingly fast applications.

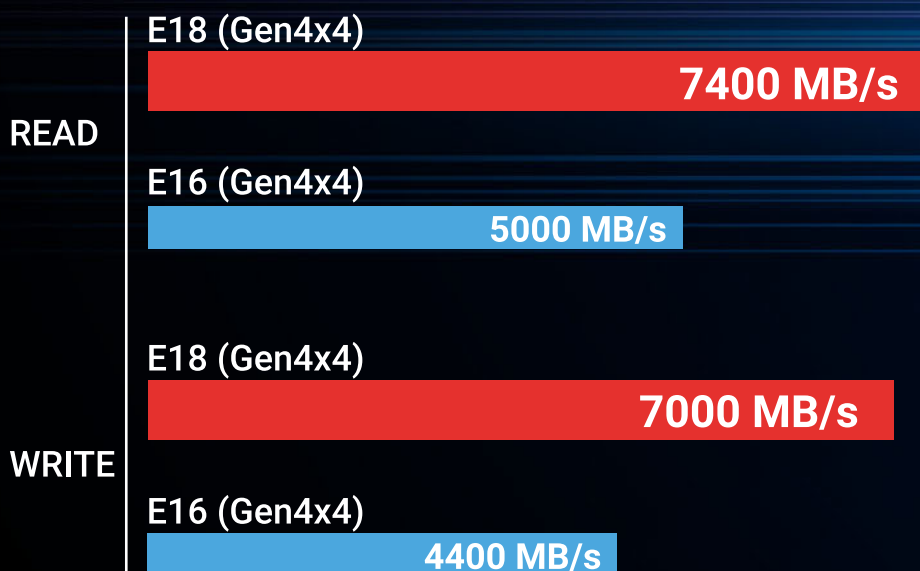
Industrial Leading Controller Capable of 7400 MB/s

E18 Compared to PCIe Gen3x4



**2.1x
Faster!**

E18 Compared to E16



**1.5x
Faster!**

Advanced Features

Triple ARM Cortex R5 CPU + Dual CoXProcessor™



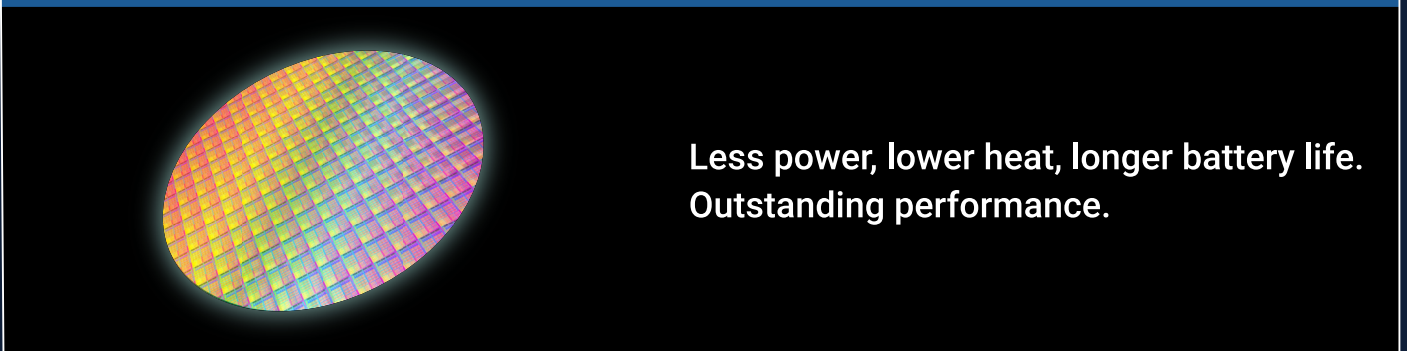
Rapid data transfer.
High-speed address translation.
Optimized NAND control.

NVMe 1.4



Compatibility with
the latest NVMe specification.

12nm Manufacturing Process



Less power, lower heat, longer battery life.
Outstanding performance.

4th Gen LDPC Engine



Enhanced data reliability.
Robust error correction code.

Technical Specification

PS5018-E18	
Technology Node	TSMC 12nm
Capacities	Up to 8TB
PCIe	
Speed & Lanes	Gen4 x4L
NVMe Revision	1.4
NAND	
Channels	8
CE#	Max 32
Speed	1,600 MT/s Per Channel
DRAM	DDR4
Performance	
Sequential Read	7,400 MB/s
Sequential Write	7,000 MB/s
Random Read	1,000,000 IOPS
Random Write	1,000,000 IOPS
Architecture	
Processor	3x ARM Cortex R5
CoXProcessor	Yes
Data Reliability	4th Gen LDPC Engine End-to-End Data Path Protection SmartECC
Security	
Hardware AES	AES 128/256 bit SHA 160/256/512
RSA	4096
Encryption	TCG & Opal 2.0 Pyrite
Crypto Erase	Yes