

# PS5018-E18

THE SUCCESSOR OF REVOLUTIONARY E16



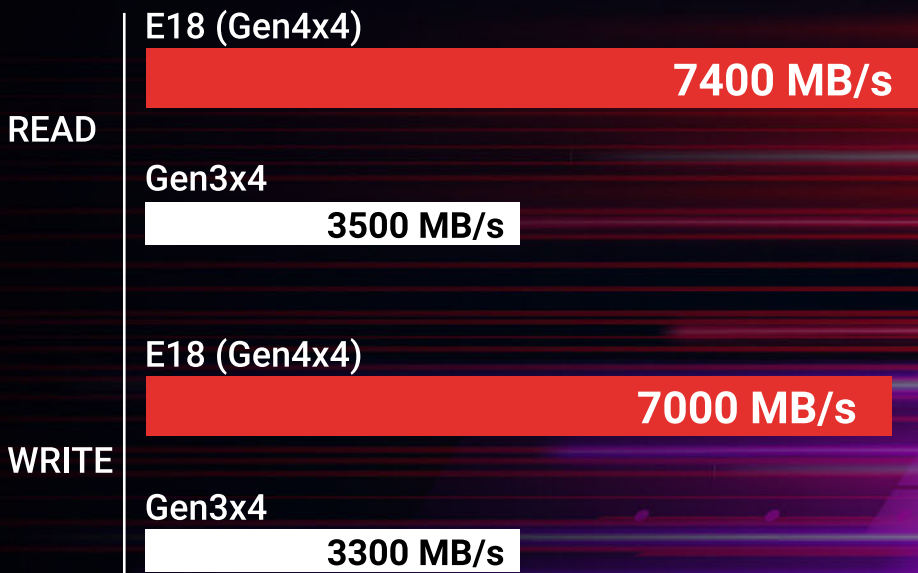
## We Define the Evolution

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.

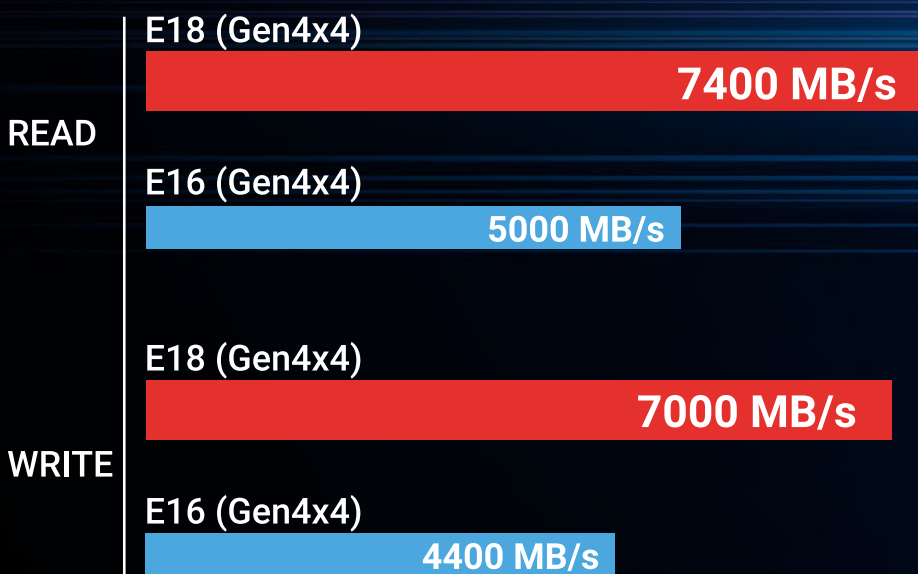
# Industrial Leading Controller Capable of 7400 MB/s

## E18 Compared to PCIe Gen3x4



**2.1x  
Faster!**

## E18 Compared to E16



**1.5x  
Faster!**

## Advanced Features

### Triple ARM Cortex R5 CPU + Dual CoXProcessor™



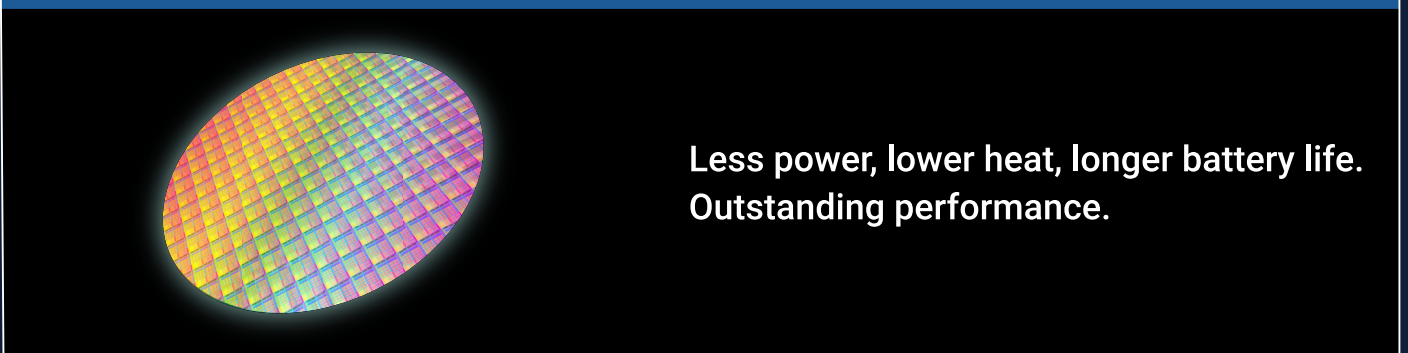
Rapid data transfer.  
High-speed address translation.  
Optimized NAND control.

### 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

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