



# EPR3750 Series Enterprise SSD: M.2 2280 PCIe Gen 4x4 TLC

## Customizable Platform Powered by the E18DC Controller

### Boot drive performance upgrade for workstations and servers

Phison's newest M.2 2280 Enterprise SSD, the EPR3750 Series features fast PCIe Gen4x4 speeds paired with the industry's newest 3D NAND, delivering excellent performance and reliability demanded in boot drives for Workstation and Server applications. The EPR3750 has enterprise SSD firmware optimized for data center applications that supports a high Quality of Service (QoS) in command execution completion times. Phison's business model is to customize the EPR3750 Series SSD platform to our customers unique application and brand requirements making the Enterprise SSD truly unique to each customer we partner with.

## ADVANCED FEATURES

### Reliability

The EPR3750 SSD leverages Phison's 4th generation LDPC ECC Engine which can correct bits in a two stage process using a hard decoder and soft decoder. This ensures the customers data is protected throughout the life of the SSD.

### PCIe Gen 4x4 and backward compatibility

The EPR3750 Series SSD is designed with the PCIe Gen 4x4 interface and the NVMe 1.4 command specification, making it an excellent performance upgrade for PCIe Gen3 and Gen4 M.2 2280 slots.

### End-to-end data path protection

From the moment data enters the EPR3750 SSD Series, a parity bit is generated that follows each byte from the interface to the NAND storage area ensuring user data has the maximum protection in integrity.

### Security features

The EPR3750 supports the latest security and encryption standards defined by Pyrite, AES256, SHA512, and RSA4096.

## EPR3750 Series: M.2 2280 Enterprise PCIe Gen 4x4 TLC SSD

Capacities		480GB, 960GB, 1.92TB	
Interface		PCIe Gen 4x4, NVMe 1.4	
Form Factor		M.2 2280	
NAND Flash		112L 3D TLC	
Sustained Performance (Up to) <sup>1, 2, 3</sup>			
	PCIe Gen4	PCIe Gen3	
Sequential Read	6,600 MB/s	3,370 MB/s	
Sequential Write	1,400 MB/s	1,400 MB/s	
4K Random Read	640,000 IOPs	640,000 IOPs	
4K Random Write	50,000 IOPs	50,000 IOPs	
Quality of Service (99.9%) <sup>3</sup>			
4K Random Read QD1 Latency	90 μs		
4K Random Write QD1 Latency	37 μs		
Reliability			
DWPD	0.6		
UBER	1 in 10 <sup>17</sup>		
Power			
Max	Active Write <9W Active Write <11W		
Idle	<3W		
Temperature			
Operating	0°C ~ 70°C		
Non-Operating	-40°C ~ 85°C		
Controller Advanced Features <i>*May require additional implementation</i>		• Multi-streams • PRP • SMBus • SECDED	

1) 1MB/s = 1,000,000 bytes / second

2) Performance measured using IOMeter version 1.1 on the full LBA span of the test drive.

- Sequential 128K queue depth 32
- Random queue depth 32 with 4 workers
- 4K = 4096 bytes.

3) EPR3750 1.92TB product tested for this specification



THE DATA WITHIN THIS SPECIFICATION IS SUBJECT TO CHANGE BY PHISON WITHOUT NOTICE. PERFORMANCE NUMBERS MAY VARY BASED ON SYSTEM CONFIGURATION AND TESTING CONDITIONS.

COPYRIGHT © 2022 PHISON ELECTRONICS, ALL RIGHTS RESERVED.

Find more information and resources at: [phisonblog.com](https://phisonblog.com) and [phison.com](https://phison.com)