DC4800 | PCIe NVMe | OCP Cloud Spec 1.0

Next-Generation Data Center SSDs for Fast, Cool, and Consistent Storage

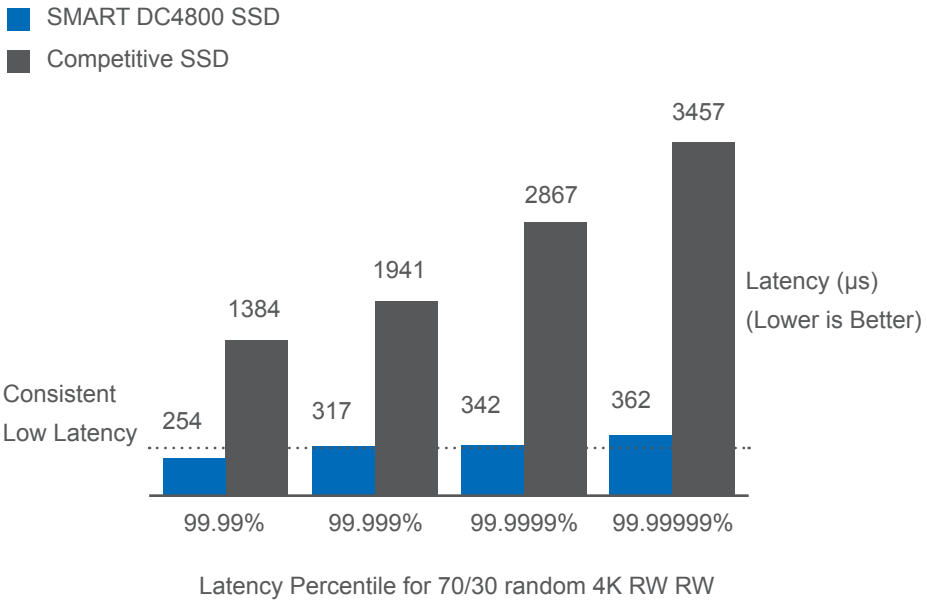
SMART's DC4800 PCIe Gen4 NVMe SSDs are designed to meet the increasing demands placed on storage systems in Hyperscaler , Hyper converged, Enterprise, and Edge data centers.

SMART's DC4800 SSDs deliver industry leading KIOPs/Watt performance with superior Quality of Service (QoS) across mixed application workloads. At the heart of the DC4800 SSDs is an innovative controller and firmware architecture that delivers ultra-low and consistent I/O latency with power consumption levels that virtually eliminate thermal throttling.

GEN4
SSD STORAGE

Hyperscaler, Hyper Converged, Enterprise, and Edge Data Centers

Superior Latency QoS <370µs at 99.99999%



Latency Percentile for 70/30 random 4K RW RW

Product Family Overview

Form Factor	Capacity
EDSFF E1.S	1.92TB, 3.84TB, 7.68TB
U.2	

Benefits of SMART Gen4 SSDs

- 7.0GB/s seq read, 4.3GB/s seq write, 1.4K IOPS random read, 200K IOPS random write
- Superior Qualify of Service (QoS) with 7 nines of latency consistency
- eTLC 3D NAND, 1 DWPD
- Up to 25% lower power than other Gen4 SSDs with industry leading KIOPs/Watt
- Leading edge, trusted industry security standards
- Open Compute Project (OCP) support

Key Features

- Capacities: 1.92TB, 3.84TB, 7.68TB (7% OP)
- Security and Encryption: TCG OPAL 2.0, AES XTS 256, TRNG
- Secure Boot with ECDSA-256 and SHA3-512
- High Reliability: End to End data path protection, SRAM/DRAM ECC, Power Loss Protection
- Sector Size: 512, 4096
- Enhanced NAND level reliability: In storage RAID with LUN level protection, L2P Mapping Index Check, 4KB LDPC multi code rates
- Multiple Namespace (16)
- NVMe MI 1.0b, SMART and Health Logs/Telemetry
- OCP Cloud Spec 1.0

Specifications

	EDSFF E1.S SSD	U.2 SSD	
NAND Type	eTLC		
Performance			
Host Interface Rate (maximum)	PCIe Gen4 x4		
Capacities	1.92TB, 3.84TB, 7.68TB		
Sequential Read (maximum)	Up to 7025MB/s		Thread Count = 1 Queue Depth = 128 IO Size = 128KB 1MB/s=2^{20} Byte/s
Sequential Write (maximum)	Up to 4300MB/s		
Random Read Performance (KIOPS)	Up to 1400K IOPS		Thread Count = 1 Queue Depth = 128 IO Size = 4KB Sustained
Random Write Performance (KIOPS)	Up to 200K IOPS		
Random Read Latency (µs)	80		Thread Count = 1 Queue Depth = 1 IO Size = 4KB Typical
Random Write Latency (µs)	15		
Latency QoS (99.9%) (Queue Depth 1 | 64)			
99.9% QoS – Random Read (µs)	110 | 240		Thread Count = 1 Queue Depth = 1 | 64 IO Size = 4KB
99.9% QoS – Random Write (µs)	30 | 1200	30 | 1000	
Electrical Specification			
Supply Voltage Min | Max (V)	10.8 | 13.2		
Active Power Consumption (W)	< 13		
Idle Power Consumption (W)	<1.0		
Reliability, Mechanical			
MTBF (Hours)	2M		
UBER	1 Sector per 10^{17} Read		
Retention	2 Months @ 40°C (EOL)		
DWPD 5 yrs 7% OP	1		
Enclosure	5.9, 9.5, 15, 25mm	15mm	

SMART® Modular Technologies

For more information, please visit: **www.smartm.com**

**Product images are for promotional purposes only. Labels may not be representative of the actual product.*

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