



CP6800 | PCIe NVMe | M.2 SSDs

The SMART Modular CP6800 PCIe NVMe M.2 SSDs are designed for enterprise and industrial OEMs, addressing applications such as servers, storage accelerators, networking, and data communications. Available in M.2 type 2230, 2242, and 2280 form factors, the CP6800 M.2 SSDs provide a dependable solution for boot, OS, and data storage needs. Featuring a PCIe Gen4 x4 interface and NVMe 1.4 compliance, they ensure compatibility with a wide range of host systems.

Equipped with an advanced DRAM-less controller design and HMB support, the CP6800 SSDs deliver cost-effective and efficient performance, ideal for resource-constrained environments. They also include hardware-based AES-256 encryption, TCG Opal 2.01 support, advanced LDPC ECC, and end-to-end data path protection, ensuring enhanced data security and reliability.

Features & Benefits

- DRAM-less Controller Design
- PCIe Gen4 x4 NVMe 1.4 Compliant
- LDPC Error Detection / Correction Circuitry for Superior Data Reliability
- Power Loss Notification
- Low Power Consumption
- Sanitize to Support Crypto Erase and Block Erase
- Support Static and Dynamic Wear Leveling
- Garbage Collection & TRIM
- Support HMB

Product Family Overview

Form Factor	Capacity	Sequential Performance
M.2 2230 SSD	256GB to 2TB	Up to 6200MB/s Read; Up to 5450MB/s Write
M.2 2242 SSD		
M.2 2280 SSD		



M.2 2280



Applications

- AIoT
- Automated Industry
- Data Center
- Networking
- Telecom

Specifications

	M.2 2230 SSD	M.2 2242 SSD	M.2 2280 SSD
NAND Type	TLC		
Performance			
Host Interface Rate (maximum)	PCIe Gen4 x4		
Capacities	256GB to 2TB		
Sequential Read (maximum)	Up to 6200MB/s		
Sequential Write (maximum)	Up to 5450MB/s		
Random Read (maximum)	Up to 900K IOPS		
Random Write (maximum)	Up to 900K IOPS		
Reliability			
MTBF	> 2,000,000 hours		
Endurance (JEDEC Client Workload)	256GB: 340 TBW		
	512GB: 680 TBW		
	1TB: 1360 TBW		
	2TB: 2720 TBW		
Error Correction	LDPC		
Power			
Input Voltage	VCC: 3.3 V ± 5%		
Environmental			
Shock	1500 g half-sine, 0.5 msec, 1 shock along each axis, X, Y, Z in each direction		
Vibration	20G, 10-2000Hz		
Operating Temperature	Commercial: 0°C to +70°C		
Storage Temperature	-40°C to +85°C		
Humidity	40°C, Operation: 90% RH, Storage: 93% RH		
Physical			
Length	30.0 mm	42.0 mm	80.0 mm
Width	22.0 mm	22.0 mm	22.0 mm
Height	2.15 mm	2.15 mm	2.15 mm
	2.3 mm (2TB)	2.3 mm (2TB)	2.3 mm (2TB)

¹Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
CP6800 PCIe NVMe M.2 2230 SSD Commercial Operating Temperature (0°C to +70°C)	
FDMP32048TCSA1H1	2TB
FDMP31024TCSA1H1	1TB
FDMP3512GTCSA1G1	512GB
FDMP3256GTCSA1G1	256GB
CP6800 PCIe NVMe M.2 2242 SSD Commercial Operating Temperature (0°C to +70°C)	
FDMP42048TCSA1H1	2TB
FDMP41024TCSA1H1	1TB
FDMP4512GTCSA1G1	512GB
FDMP4256GTCSA1G1	256GB
CP6800 PCIe NVMe M.2 2280 SSD Commercial Operating Temperature (0°C to +70°C)	
FDMP82048TCSA1H1	2TB
FDMP81024TCSA1H1	1TB
FDMP8512GTCSA1G1	512GB
FDMP8256GTCSA1G1	256GB



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

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