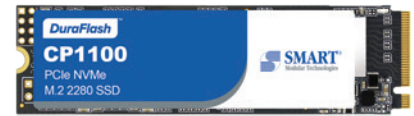# SMART®
Modular Technologies

DuraFlash™

CP1100 | PCIe NVMe | M.2 2280 SSD

SMART's DuraFlash CP1100 PCIe NVMe M.2 2280 SSDs feature a PCIe Gen3 x4 interface and are compliant to NVMe 1.3 specification. They are designed to meet the demand for a cost-effective solution in general-purpose industrial applications, such as POS/Kiosk, embedded automation and edge computing, with advanced features that ensure the high level of operational stability and reliability over the lifetime of the SSDs.

Incorporating the 3D NAND technology, the CP1100 PCIe NVMe M.2 2280 SSDs utilize an advanced DRAM-less cache controller design for the best balance in performance and cost. Advanced error detection and correction and thermal management ensure exceptional data integrity and reliability under variable operating environments.

3D TLC

Features & Benefits

- PCIe Gen3 x4 NVMe 1.3 Compliant
- M.2 Single-Sided Design
- DRAM-less Controller Design
- 3D NAND Technology with High Endurance
- Thermal Throttling Management
- LDPC Error Detection / Correction Circuitry for Superior Data Reliability
- Self-Monitoring Analysis and Reporting Technology (S.M.A.R.T.) Support

Applications

- Edge Computing
- Industrial Automation Control
- POS Systems
- Networking Routers and Switches
- Single-Board Computers for Gaming

Product Family Overview

Capacity	Sequential Performance
**CP1100	PCIe NVMe	M.2 2280 SSD**	
240GB to 960GB	Up to 2555MB/s Read; Up to 1800MB/s Write

Specifications

	CP1100 | PCIe NVMe | M.2 2280 SSD
NAND Type	TLC
Performance	
Host Interface Rate (maximum)	PCIe Gen3 x4
Capacities	240GB to 960GB
Sequential Read (maximum)	Up to 2555MB/s
Sequential Write (maximum)	Up to 1800MB/s
Random Read (maximum)	Up to 107K IOPS
Random Write (maximum)	Up to 89K IOPS
Reliability	
MTBF	> 1,000,000 hours
Endurance (Sequential Workload)[1]	960GB: 2500 TBW 480GB: 1250 TBW 240GB: 625 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 80-2000Hz, 1.52mm 20-80Hz, 3 axis
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	80.0 mm
Width	22.0 mm
Height	2.05 mm

[1]Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
CP1100 | PCIe NVMe | M.2 2280 SSD **Commercial Operating Temperature (0°C to +70°C)**	
FDMP8960GTCXA111	960GB
FDMP8480GTCXA111	480GB
FDMP8240GTCXA111	240GB

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