



# CP3000 | PCIe NVMe | M.2 2280 SSD

The CP3000 PCIe NVMe M.2 2280 SSDs feature a PCIe Gen4 x4 interface and are compliant to NVMe 1.4 specification. The increased bandwidth offered by PCIe 4.0 improves the efficiency of performing workloads. 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 CP3000 PCIe NVMe M.2 2280 SSDs utilize an advanced DRAM 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.



## Features & Benefits

- PCIe Gen4 x4 NVMe 1.4 Compliant
- With DRAM Controller Design
- 3D NAND Technology with High Endurance
- Thermal Throttling Management
- LDPC Error Detection / Correction Circuitry for Superior Data Reliability
- 1 DWPD / 3 DWPD for Five Years

## Applications

- Data Center
- Networking
- Storage Server
- Telecom

## Product Family Overview

| Form Factor            | Capacity         | Sequential Performance |
|------------------------|------------------|------------------------|
| M.2 2280 (eTLC)        | 960GB to 3840GB  | Up to 3300MB/s Read    |
| M.2 2280 (eTLC OP 28%) | 1600GB to 3200GB | Up to 2900MB/s Write   |

## Specifications

| CP3000   PCIe NVMe   M.2 2280 SSD        |   |                                      |
|--|---|--------------------------------------|
| NAND Type                                | eTLC  | eTLC (OP 28%)                        |
| <b>Performance</b>                       |   |                                      |
| Host Interface Rate (maximum)            | PCIe Gen4 x4  |                                      |
| Capacities                               | 960GB to 3840GB   | 1600GB to 3200GB                     |
| Sequential Read (maximum)                | Up to 3300MB/s  |                                      |
| Sequential Write (maximum)               | Up to 2900MB/s  |                                      |
| Random Read (maximum)                    | Up to 380K IOPS   |                                      |
| Random Write (maximum)                   | Up to 50K IOPS  | Up to 110K IOPS                      |
| <b>Reliability</b>                       |   |                                      |
| MTBF                                     | > 2,000,000 hours   |                                      |
| Endurance<br>(JEDEC Enterprise Workload) | 3840GB: 7000TBW<br>1920GB: 3500 TBW<br>960GB: 1700 TBW                            | 3200GB: 17200TBW<br>1600GB: 8600 TBW |
| DWPD                                     | 1   | 3                                    |
| Error Correction                         | LDPC  |                                      |
| <b>Power</b>                             |   |                                      |
| Input Voltage                            | VCC: 3.3 V ± 5%   |                                      |
| <b>Environmental</b>                     |   |                                      |
| Shock                                    | 1500 g half-sine, 0.5 msec, 1 shock along each axis,<br>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  |                                      |
| <b>Physical</b>                          |   |                                      |
| Length                                   | 80.0 mm   |                                      |
| Width                                    | 22.0 mm   |                                      |
| Height                                   | 3.6 mm  |                                      |

## Ordering Information

| Part Number  | Density |
|--|---------|
| <b>CP3000 eTLC   PCIe NVMe   M.2 2280 SSD</b><br><b>Commercial Operating Temperature (0°C to +70°C)</b>        |         |
| FDMP83840FCF11C2   | 3840GB  |
| FDMP81920FCF11C2   | 1920GB  |
| FDMP8960GFCF11C2   | 960GB   |
| <b>CP3000 eTLC OP 28%   PCIe NVMe   M.2 2280 SSD</b><br><b>Commercial Operating Temperature (0°C to +70°C)</b> |         |
| FDMP83200FCF11C2   | 3200GB  |
| FDMP81600FCF11C2   | 1600GB  |



For more information, please visit: [www.smartm.com](http://www.smartm.com)

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

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