

# Apacer

The Most **Reliable**  
Storage For Industries

**PT250-M280**  
**Single side**



## PT250-M280 Single side

### Overview

Apacer PT250-M280 is a high-performance SSD designed with M.2 2280 dimensions, fully compliant with the PCIe Gen4 x4 interface and NVMe 2.0 specifications. This enables it to operate efficiently in power management modes, significantly reducing power consumption. Built with a powerful PCIe controller that supports on-the-module ECC and an efficient wear-leveling scheme, PT250-M280 delivers exceptionally low latency and outstanding data transfer performance. Its compact and high-speed design makes it the ideal choice for larger, faster hosts deployed in applications that demand superior performance.



Leveraging 3D NAND technology for capacities of up to 2TB and improved power efficiency compared to 2D NAND, the PV250-M280 integrates an LDPC (Low-Density Parity Check) ECC engine to enhance SSD endurance and data reliability. It features a built-in thermal sensor to monitor SSD temperatures via S.M.A.R.T commands, complemented by thermal throttling that dynamically adjusts frequency scaling to ensure sustained performance and prevent overheating. The addition of a heat spreader provides exceptional thermal dissipation, keeping the drive cool while maintaining peak performance. To further enhance durability and resilience against thermal and mechanical stresses, the SSD incorporates Sidefill technology, allowing it to function reliably in environments with high vibration and extreme temperature fluctuations. For demanding applications, End-to-End Data Protection safeguards data integrity at multiple stages, ensuring reliable data transfers.

In terms of security, PT250-M280 offers robust data protection with Advanced Encryption Standard to safeguard against unauthorized access. The SSD also incorporates various advanced features, including flash block management, power failure management, TRIM, page mapping, Hyper Cache technology, SMART Read Refresh, NVMe secure erase, and power saving modes.

With its exceptional performance, proven reliability, and enhanced data protection, PT250-M280 is the ideal storage or cache solution for a variety of applications, from industrial and imaging to computing and enterprise markets.

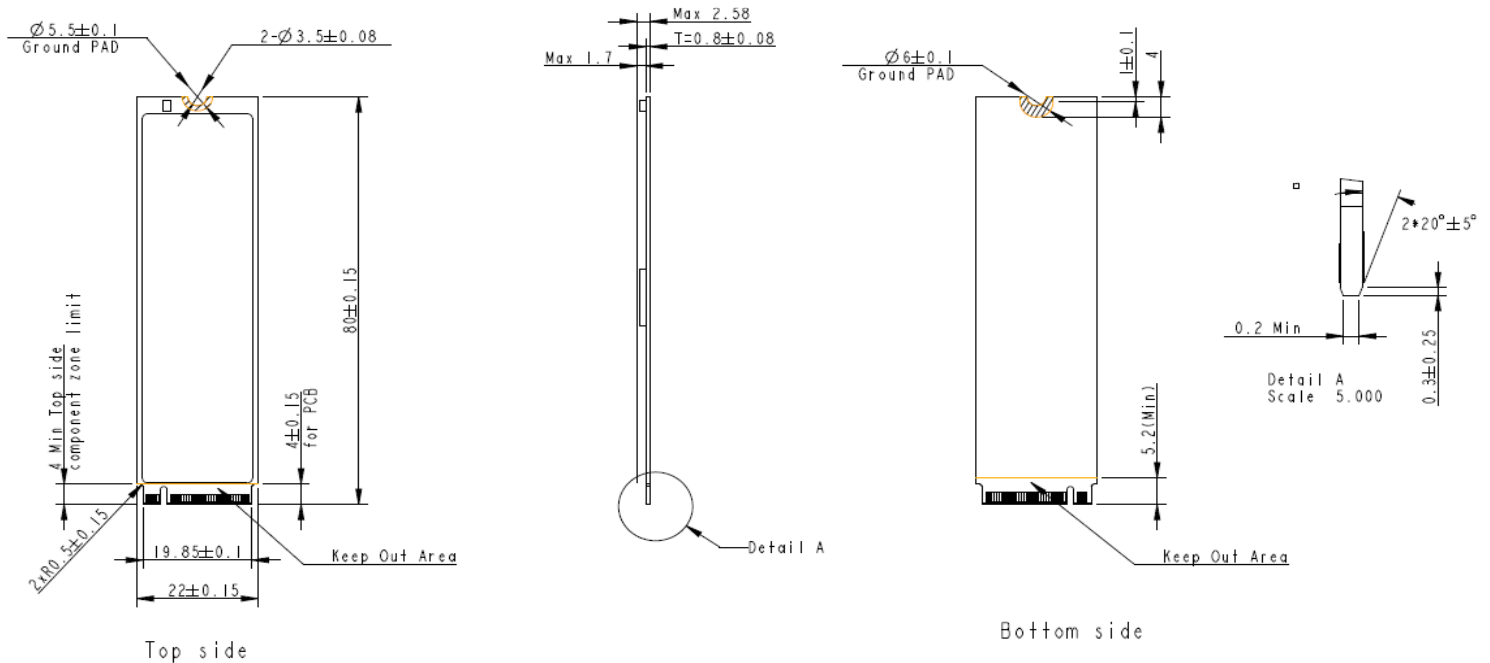
## Feature

- Low-Density Parity-Check (LDPC) Code
- Flash bad-block management
- Global Wear Leveling
- Power Failure Management
- TRIM
- Flash Translation Layer: Page Mapping
- Hyper Cache Technology
- SMART Read Refresh™
- NVMe Secure Erase
- S.M.A.R.T.

## Specifications

<b>Model</b>	PT250-M280
<b>Interface</b>	PCIe Gen4 x4
<b>Connector</b>	Single-sided M.2 2280-M
<b>Form Factor</b>	M.2 2280
<b>NAND Flash Type</b>	3D TLC
<b>Capacity</b>	64GB-2TB
<b>External DRAM</b>	No
<b>Sustained Read Performance (MB/sec)</b>	Up to 3740
<b>Sustained Write Performance (MB/sec)</b>	Up to 3460
<b>ECC Engine</b>	Low-Density Parity-Check (LDPC) Code
<b>IOPs (4K Random Write)</b>	664K
<b>Standard Operating Temperature ( °C )</b>	0 ~ + 70
<b>Storage Temperature ( °C )</b>	-55 ~ + 100
<b>Thermal sensor</b>	Yes
<b>Shock</b>	Operation: Acceleration, 50(G)/11(ms)/half sine (compliant with MIL-STD-202G) Non-operation: Acceleration, 1500(G)/0.5(ms)/half sine (compliant with MIL-STD-883K)
<b>Vibration</b>	Operation: 7.69 GRMS, 20~2000 Hz/random (compliant with MIL-STD-810G) Non-operation: 4.02 GRMS, 15~2000 Hz/random (compliant with MIL-STD-810G)
<b>Operating Voltage</b>	3.3V ±5%
<b>Power Consumption</b>	Active mode: 1260 mA / Idle mode: 300mA
<b>Dimension (L x W x H )</b>	22.00 x 80.00 x 2.58(max.)
<b>MTBF (hours)</b>	>3,000,000

## Mechanical Specification



For more information,  
contact your Apacer representative

### Global Presence

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