

# Apacer

The Most **Reliable**  
Storage For Industries

**PT250-M280 CET**



### Overview

Apacer PT250-M280 is the fastest SSD designed with M.2 2280 mechanical dimensions, providing full compliance with PCIe Gen4 x3 interface and NVMe 2.0 specifications. This enables it to operate in power management modes and significantly reduce power consumption. Equipped with a powerful PCIe controller supporting on-the-module ECC and an efficient wear-leveling scheme, PT250-M280 delivers exceptionally low latency and outstanding performance in data transfer. With its compact size and high-speed storage capabilities, PT250-M280 is the ideal choice for larger, faster hosts deployed in a wide range of applications that demand exceptional performance.



Utilizing 3D NAND technology and offering superior power efficiency compared to 2D NAND, PT250-M280 is equipped with advanced features to optimize performance and reliability. It incorporates an LDPC (Low Density Parity Check) ECC engine to enhance SSD endurance and data reliability. Additionally, it features a built-in thermal sensor that monitors SSD temperature through S.M.A.R.T commands and employs thermal throttling to dynamically adjust frequency scaling, ensuring sustained performance while preventing overheating.

PT250-M280 also includes CoreGlacier technology to maintain low temperatures while delivering high-speed performance. To enhance product durability and resilience against thermal and mechanical stresses, it integrates Sidefill technology, enabling it to operate smoothly even in environments with high vibration and extreme temperature fluctuations. For demanding applications, PT250-M280 provides End-to-End Data Protection, which safeguards data integrity at multiple points along the data transfer path, enabling dependable delivery of data transfers.

In terms of security, Advanced Encryption Standard (AES) provides robust protection, ensuring data is safeguarded against unauthorized access at all times. PT250-M280 also incorporates various advanced features, including flash block management, DataDefender, TRIM, page mapping, Hyper Cache technology, SMART Read Refresh, NVMe secure erase, and power saving modes.

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

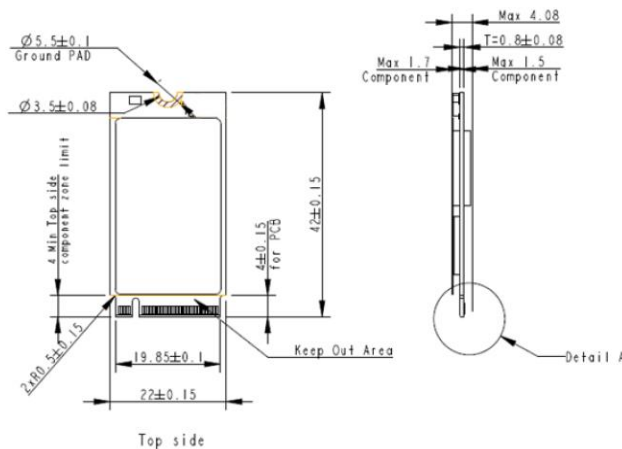
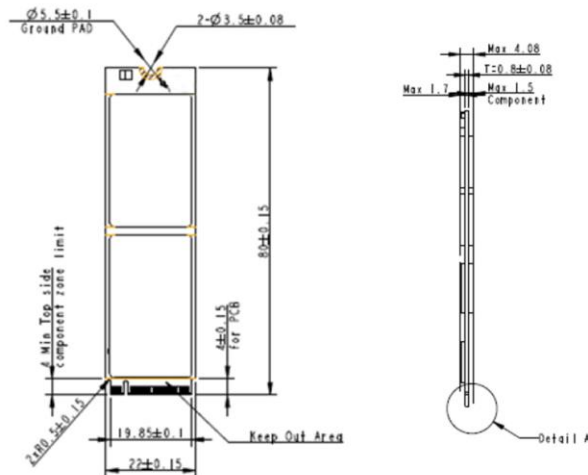
## Feature

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

## Specifications

<b>Model</b>	PT250-M280 CET
<b>Interface</b>	PCIe Gen4 x4
<b>Connector</b>	Double-sided: M.2 2280 M key
<b>Form Factor</b>	M.2 2280
<b>NAND Flash Type</b>	3D TLC
<b>Capacity</b>	128B~4TB
<b>External DRAM</b>	NO
<b>Sustained Read Performance (MB/sec)</b>	Up to 3700
<b>Sustained Write Performance (MB/sec)</b>	Up to 3,485
<b>ECC Engine</b>	Low-Density Parity-Check (LDPC) Code
<b>IOPs (4K Random Write)</b>	677K
<b>Standard Operating Temperature ( °C )</b>	CET -25 ~ + 85
<b>Extended Operating Temperature ( °C )</b>	
<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: 1595 mA / Idle mode: 305mA
<b>Dimension (L x W x H )</b>	22.00 x 80.00 x 4.08(max.)
<b>MTBF (hours)</b>	>3,000,000

## Mechanical Specification



For more information,  
contact your Apacer representative

### Global Presence

Taiwan (Headquarters)  
Apacer Technology Inc.  
Tel: +886-2-2267-8000  
Fax: +886-2-2267-2261

Europe  
Apacer Technology B.V.  
Tel: +31-40-267-0000  
Fax: +31-40-290-0686

U.S.A.  
Apacer Memory America, Inc.  
Tel: +1-408-518-8699  
Fax: 1-510-249-9551

Shanghai  
Apacer Electronic(Shanghai)  
Co., Ltd.  
Tel: +86-21-6228-9939

Japan  
Apacer Technology Corp.  
Tel: +81-3-5419-2668  
Fax: +81-3-5419-0018

India  
Apacer Technologies Pvt. Ltd.  
Tel: +91-80-41529061~3  
Fax: +91-80-41700215