

The Most **Reliable** Storage For Industries

PV250-M280



Overview

PV250-M280

Apacer PV250-M280 is a high-performance SSD built with a PCIe Gen4 x4 interface and compliant with the NVMe 2.0 standard. Tailored for modern industrial needs, it combines speed, energy efficiency, and reliability in a compact M.2 2280 form factor. Designed as part of Apacer's CoreEnergy series, PV250-M280 is ideal for applications that demand low power consumption, such as portable battery-powered systems, harsh-environment deployments, and fanless industrial PCs (IPCs).



At the heart of PV250-M280 lies Apacer's CoreEnergy Technology — a comprehensive firmware and hardware solution that empowers users to dynamically manage power and performance profiles. With a built-in DIP switch and intuitive CoreEnergy software utility, users can easily toggle between multiple preset energy modes. For more advanced control, the utility also offers an "Advanced Energy Mode" for fine-tuning system-level parameters, ensuring peak performance without compromising energy savings or thermal stability.

To ensure long-term durability and data integrity, PV250-M280 integrates a full suite of flash management technologies, including LDPC ECC, Bad Block Management, Global Wear-leveling, DataDefender, TRIM, Page Mapping, Hyper Cache Technology, Over-provisioning, and SMART Read Refresh. These features help maintain optimal performance and extend SSD lifespan, even under continuous and demanding workloads.

PV250-M280 also supports comprehensive security and reliability functions, including AES Encryption, TCG Opal Compliance, End-to-End Data Protection, a built-in thermal sensor, and CoreGlacier Thermal Management. With industrial-grade reliability and intelligent energy management, PV250-M280 is a robust storage solution for power-sensitive and mission-critical applications.

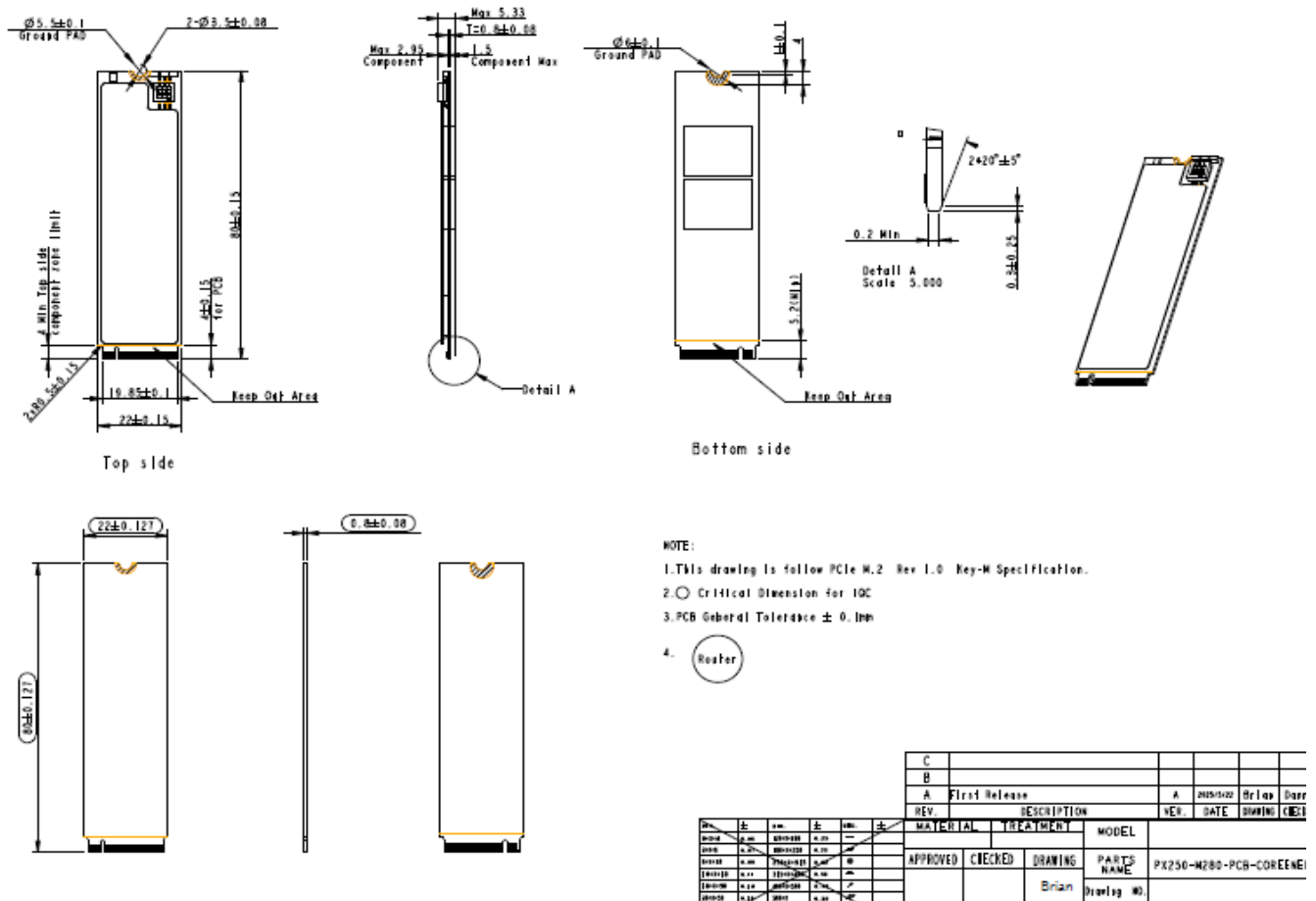
Features

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

Specifications

Model Name	PV250-M280
Interface	PCIe Gen4 x4
Connector	Double-sided: M.2 2280-M key
Form Factor	M.2 2280
NAND Flash Type	3D TLC
Capacity	240GB~3840GB
External DRAM	No
Sustained Read Performance (MB/sec.)	Up to 3695
Sustained Write Performance (MB/sec.)	Up to 3250
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	565K
Standard Operating Temperature (°C)	240GB~3840GB: 0°C ~ 70°C
Extended Operating Temperature (°C)	240GB~1920GB: -40°C ~ 85°C
Storage Temperature (°C)	-55°C ~ + 100°C
Housing	No
Thermal Sensor	Yes
Shock	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)
Vibration	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)
Operating Voltage	3.3V ±5%
Power Consumption	Active Mode: 1670 mA / Idle Mode: 250mA
Dimension (L x W x H)	22.00 x 80.00 x 5.33(max.)
MTBF (Hours)	>3,000,000

Mechanical Specifications



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