Apacer

The Most **Reliable**
Storage For Industries

PV220-M280

PV220-M280

Overview

Apacer PV220-M280 is the fastest SSD designed as M.2 2280 mechanical dimensions, providing full compliance with PCIe Gen3 x4 interface and NVMe 1.3 specifications.

Built with a powerful PCIe controller, PV220-M280 delivers outstanding performance in data transfer, reaching up to 211,000/311,000 and 2,390/2,205 MB/s in IOPS and sequential read/write. The extreme thin and light form factor makes PV220-M280 the ideal choice for mobile computing systems, which appears to be the trend in near future.

In terms of security, Advanced Encryption Standard (AES) ensures data security and provides users with a peace of mind. Furthermore, with End-to-End Data Protection, data integrity can be assured at multiple points in the path to enable reliable delivery of data transfers. Regarding reliability, PV220-M280 is built with a powerful PCIe controller that supports on-the-module ECC as well as efficient wear leveling scheme. In terms of power efficiency, PV220-M280 is compliant with PCIe Gen3 x4 interface standard so that it can operate on power management modes, which greatly save on power consumption.

Supports Anti-sulfuration Technology; Passed ANSI/ISA 71.04 G3 Certification

In order to reduce the impact of pollutants in the air on the proper operation of information equipment, many large data centers have not only begun to strictly implement environmental controls. One popular standard for air quality is the 71.04-2013 G1 standard defined by ANSI/ISA.

With value-added anti-sulfuration technology, PV220-M280 achieves a complete air barrier through strict inspection of special materials and technologies. After two complete accelerated verification tests of MFG (Mixed Fluid Gas and FoS (Flower of Sulfur), it has passed the American National Standards Institute/International Association of Automation 71.04 G3 air corrosion certification. This proves that it has reached the industry's highest level of sulfur resistance, including resistance to silver corrosion, copper corrosion and creep.
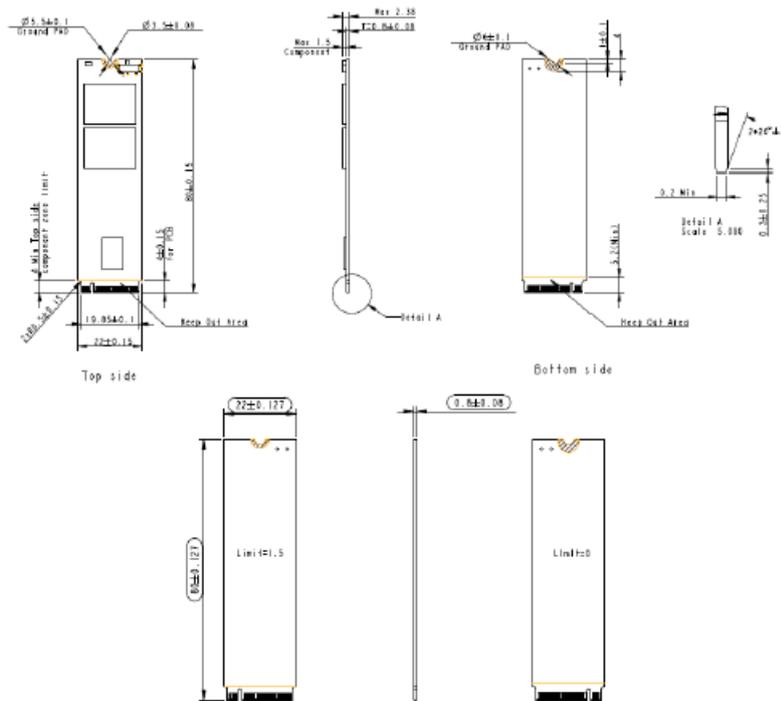
Feature

· Adopts advanced LDPC ECC engine with 3D NAND flash memory to improve reliability

· CoreGlacier™ heatsink technology

· Global Wear Leveling

· Flash bad-block management

· Flash Translation Layer: Page Mapping

· S.M.A.R.T.

· DataDefender™

· TRIM support

· Hyper Cache Technology

· Over-Provisioning

· DataRAID™

· NVMe Secure Erase

· Anti-Sulfuration

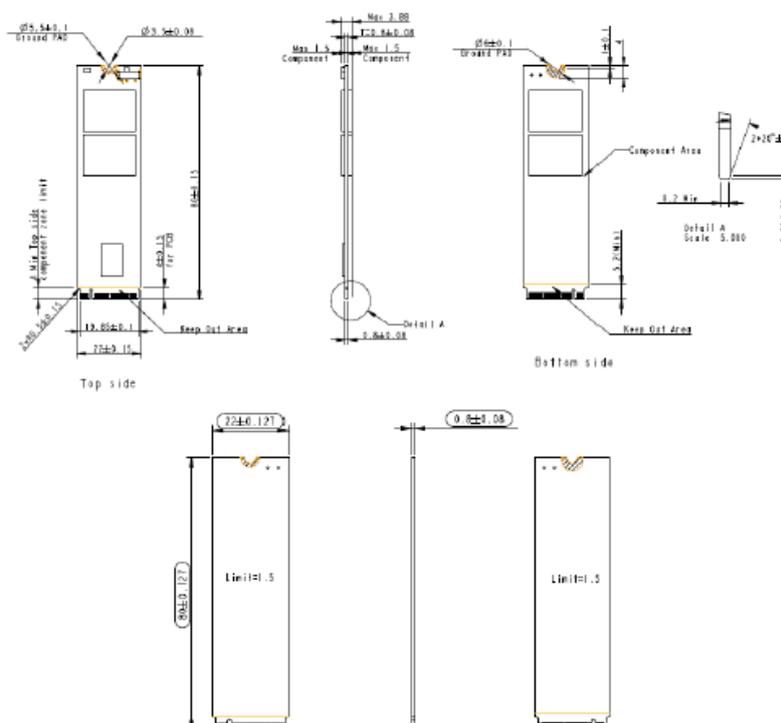· Supports TCG Opal 2.0 / AES 256-bit encryption

Specifications

Model	PV220-M280
Interface	PCIe Gen3 x4
Connector	M.2 M Key
Form Factor	M.2 2280 Single side, M key: 120/240GB M.2 2280 Double side, M key: 480/1920GB
NAND Flash Type	3D TLC
Capacity	120GB~1920GB
External DRAM	No
Sustained Read Performance (MB/sec)	Up to 2390
Sustained Write Performance (MB/sec)	Up to 2205
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	311K
Standard Operating Temperature (˚C)	0 ~ + 70
Extended Operating Temperature (˚C)	-40 ~ + 85
Storage Temperature (˚C)	-40 ~ + 100
Thermal Sensor	Yes
Shock	Operation: 50G/11ms (compliant with MIL-STD-202G) Non-operation: 1500G/0.5ms (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: 1240 mA / Idle mode: 240 mA
Dimension (L x W x H)	CoreGlacier: Single side: 22.00 x 80.00 x 2.58 (mm) Double side: 22.00 x 80.00 x 4.08 (mm)
MTBF (hours)	>3,000,000

Mechanical Specification

Single Side

Top side

Bottom side

Detail A
Scale 5.000

Double Side

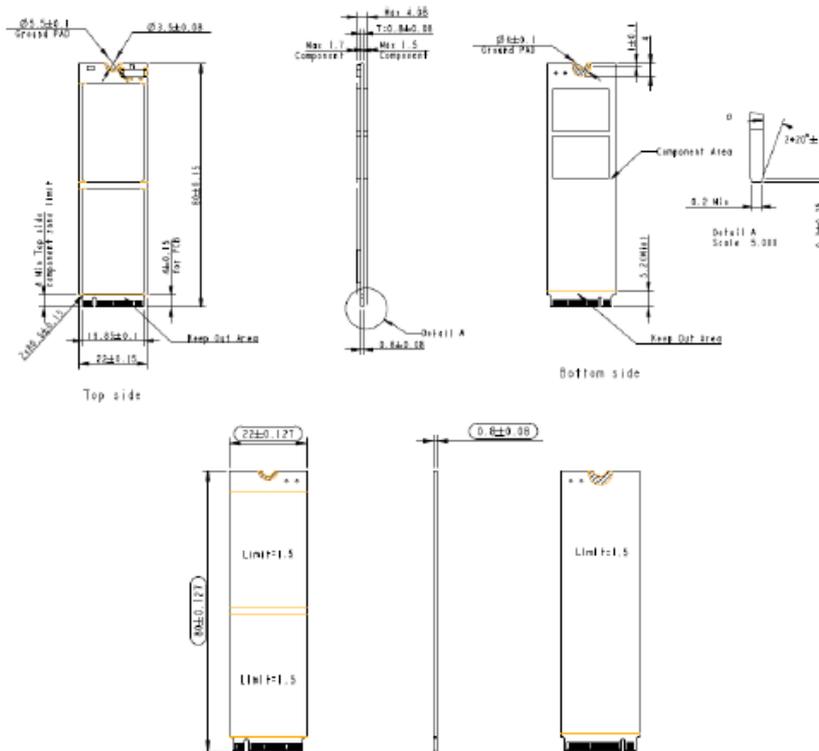Top side

Bottom side

Detail A
Scale 5.000

Unit: mm

Mechanical Specification

CoreGlacier™

Unit: mm

For more information,
contact your Apacer representative

Global Presence

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

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

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

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

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

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