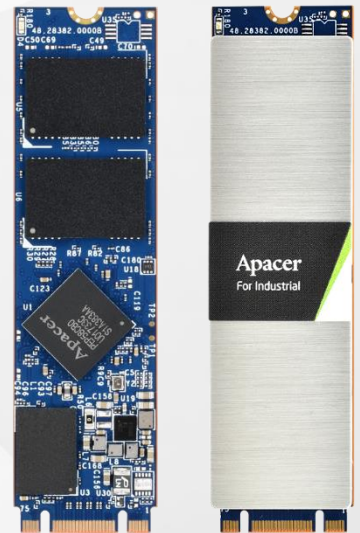# Apacer

The Most **Reliable**
# Storage For Industries

PV120-M280

PV120-M280

Overview

Apacer PV120-M280 (M.2 2280) is the next generation modularized Solid State Drive (SSD) with the shape of all new M.2 form factor, aimed to be the more suitable for mobile and compact computers with standard width at only 22.00 mm. PV120-M280 appears in M.2 2280 mechanical dimensions and is believed to be the leading add-in storage solution for future host computing systems.

The M.2 SSD is designed with PCIe-based connector pinouts, providing full compliance with the latest PCIe Gen3x2 interface specifications. Aside from PCIe compliance, PV120-M280 delivers exceptional performance and power efficiency. On the other hand, the extreme thin and light form factor makes PV120-M280 the ideal choice for mobile computing systems, which appears to be the trend in near future.

Regarding reliability, PV120-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, PV120-M280 is compliant with PCIe Gen3x2 interface standard so that it can operate on power management modes, which greatly save on power consumption.
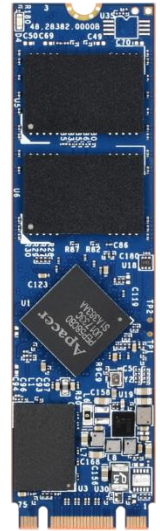
Feature

- Low-Density Parity-Check (LDPC) Code
- Global Wear Leveling
- Flash bad-block management
- Flash Translation Layer: Page Mapping
- S.M.A.R.T.
- TRIM support

- Supports TCG Opal 2.0 / AES 256-bit encryption
- CoreGlacier™ heatsink technology for wide temp.
- Hyper Cache Technology
- Over-Provisioning
- DataRAID™

Specifications

|	
Model	PV120-M280
Interface	PCIe Gen3x2
Connector	M.2 B & M key
Form Factor	M.2 2280 single side, B+M key: 120, 240 GB M.2 2280 double side, B+M key: 480, 960 GB
NAND Flash Type	3D TLC
Capacity	120GB-960GB
External DRAM	Yes
Sustained Read Performance (MB/sec)	Up to 1710
Sustained Write Performance (MB/sec)	Up to 1065
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	182K
Standard Operating Temperature (°C)	0 ~ + 70
Extended Operating Temperature (°C)	-40~ + 85
Storage Temperature (°C)	-40 ~ + 100
Thermal Sensor	Yes
Shock	Operation: 50G, 11ms Non-operation: 1500G, 0.5ms
Vibration	Operation: 7.69 Grms, 20~2000 Hz/random (compliant with MIL-STD-810G) Non-operation: 4.02 Grms, 15 ~ 2000 Hz/sine (compliant with MIL-STD-810G)
Operating Voltage	3.3V ±5%
Power Consumption	Active mode: 1275 mA / Idle mode: 150 mA
Dimension (L x W x H)	Standard temp.: 80.00 x 22.00 x 3.38 (mm) Wide temp.: 80.00 x 22.00 x 4.10 (mm)
MTBF (hours)	>3,000,000

Mechanical Specification

Standard Temperature

120-240GB
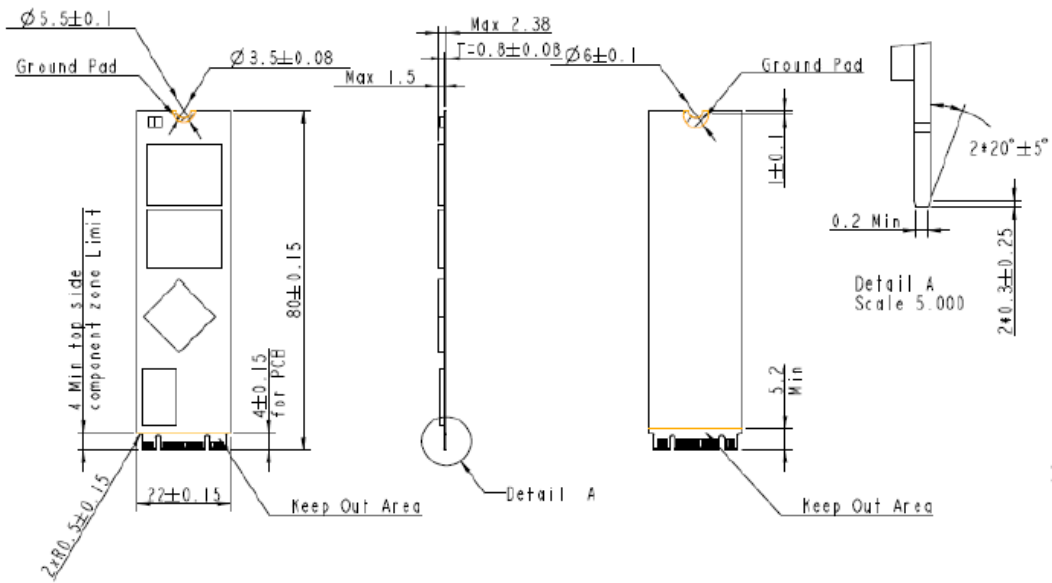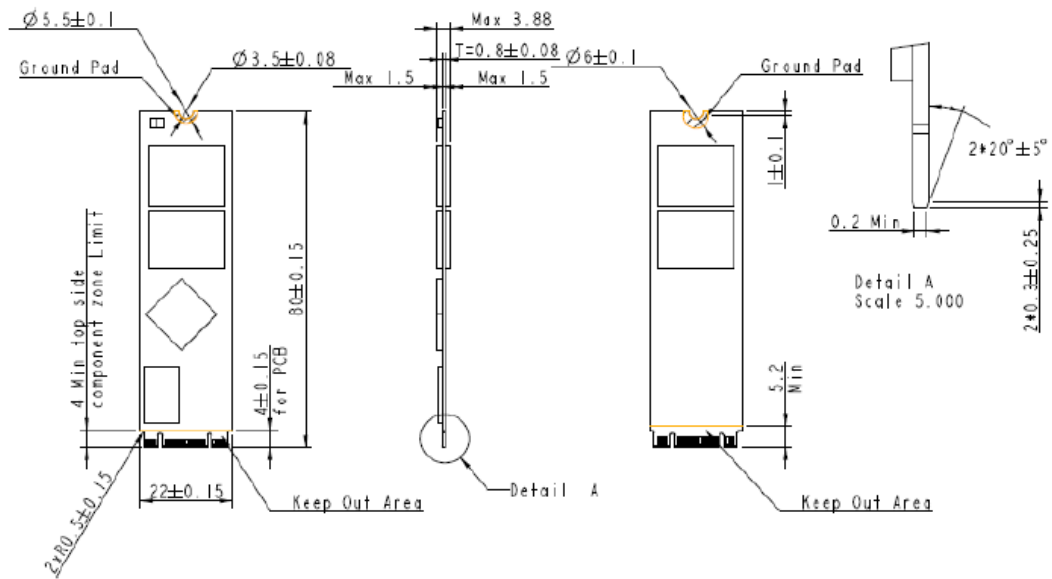
480GB

Unit: mm

Mechanical Specification

Standard Temperature

960GB
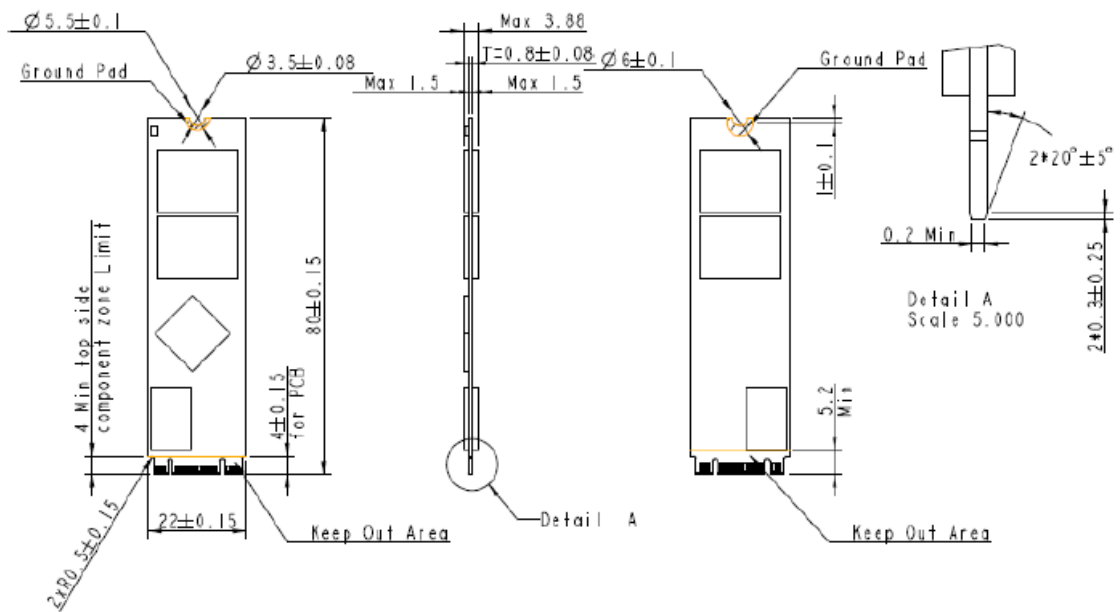
Unit: mm

Mechanical Specification

Wide Temperature

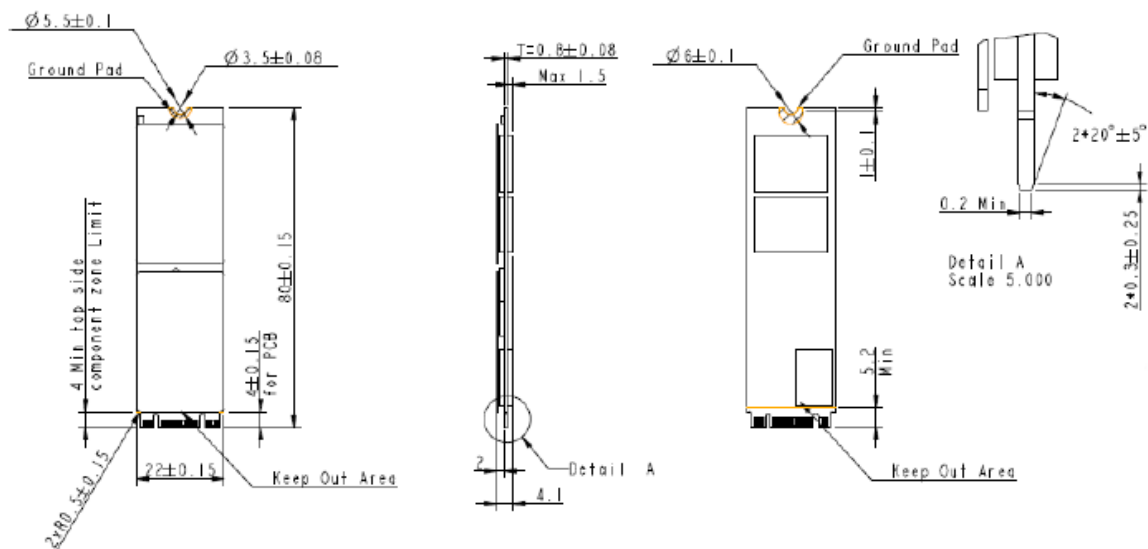### 120-240GB
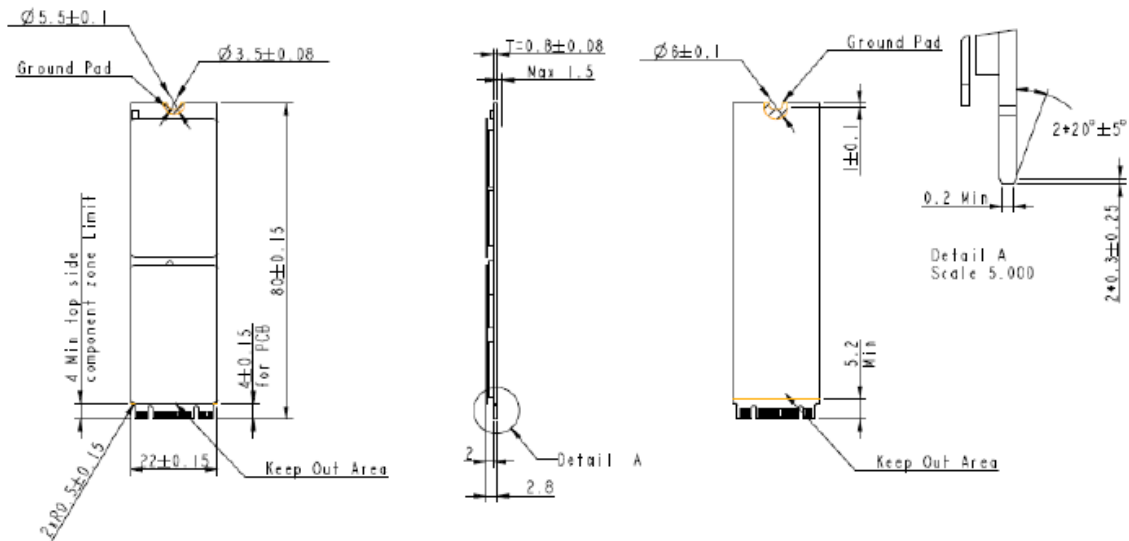
480GB
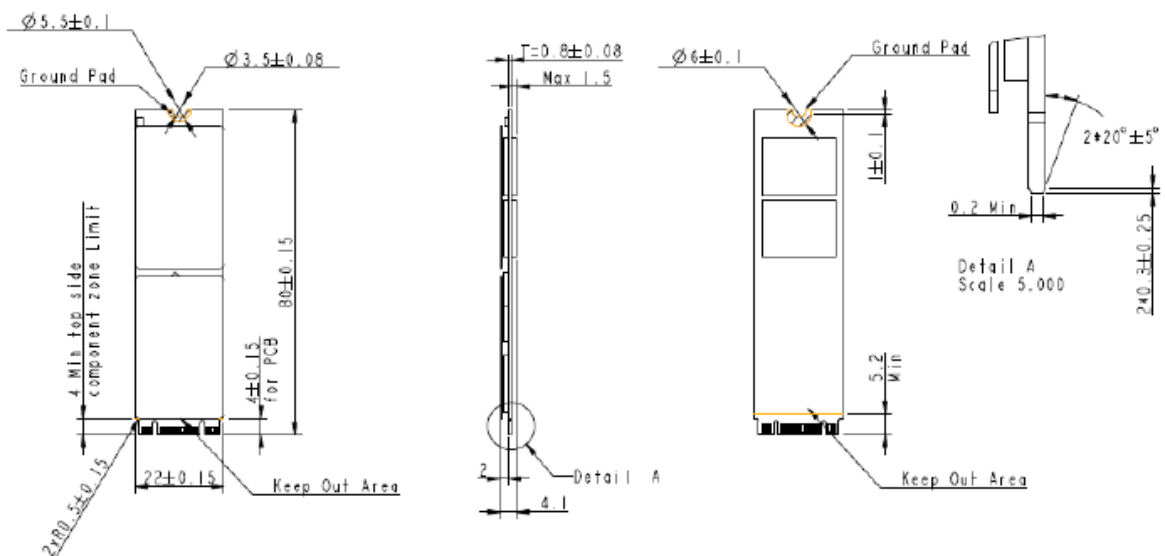
Unit: mm

Mechanical Specification

Wide Temperature

960GB

Unit: mm

For more information,
contact your Apacer representative

Global Presence

Taiwan (Headquarters)	Europe	U.S.A.	China
Apacer Technology Inc.	Apacer Technology B.V.	Apacer Memory America, Inc.	Apacer Electronic(Shanghai) Co., Ltd.
Tel: +886-2-2267-8000	Tel: +31-40-267-0000	Tel: +1-408-518-8699	Tel: +86-21-6228-9939
Fax: +886-2-2267-2261	Fax: +31-40-290-0686	Fax: 1-510-249-9551	

Japan	India		
Apacer Technology Corp.	Apacer Technologies Pvt. Ltd.		
Tel: +81-3-5419-2668	Tel: +91-80-41529061~3		
Fax: +81-3-5419-0018	Fax: +91-80-41700215		