Apacer

The Most **Reliable**
Storage For Industries

SM21P-M280

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Overview

Apacer's SM21P-M280 (M.2 2280) is the next generation modularized Solid State Drive (SSD) with the shape of all new M.2 form factor, with the aim to be the more suitable for mobile and compact computers with standard width at only 22.00 mm. SM21P-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 SATA-based connector pinouts, providing full compliance with the latest SATA Revision 3.1 interface specifications. Aside from SATA compliance, SM21P-M280 delivers exceptional performance and power efficiency. On the other hand, the extreme thin and light form factor makes SM21P-M280 the ideal choice for mobile computing systems, which appears to be the trend in near future.

Regarding reliability, SM21P-M280 is built with a powerful SATA controller that supports on-the-module ECC as well as efficient wear leveling scheme. Operating under SATA 6.0 Gbps interface, SM21P-M280 is provided with Apacer latest S.M.A.R.T. that is primarily oriented for the latest SATA interface SSD, for drive lifetime monitoring and analyzing.

Furthermore, CorePower is a hardware-based technology designed to prevent data loss and ensure the stability of data transmission during a power outage by implementing backup power supply that allows sufficient time to move all cached data to NAND flash.
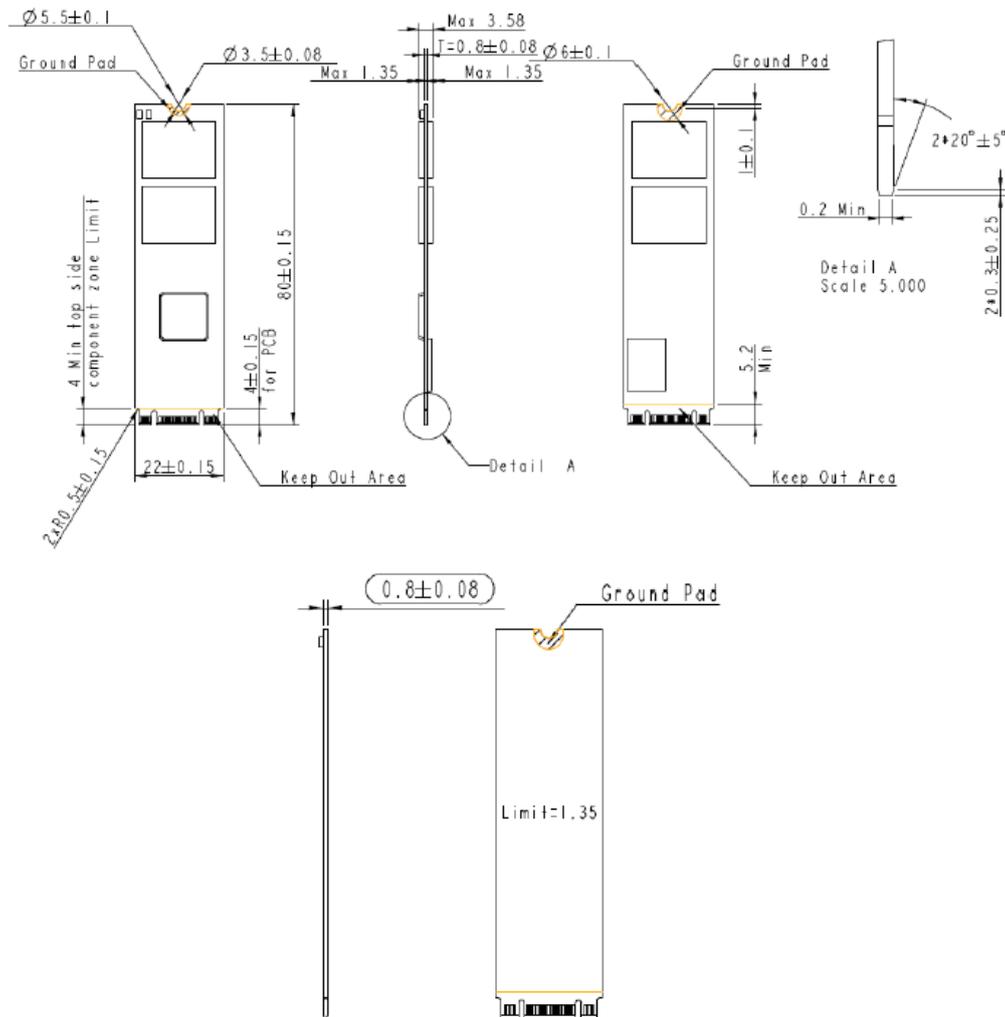
Feature

- SATA 3 (6Gb/s) interface
- M.2 (NGFF) connector
- Advanced 4K Page Mapping Technology
- Built-in ATA secure erase and S.M.A.R.T. functions
- DRAM Cache for Enhanced Random Performance
- Core Power to prevent data loss

Specifications

Model	SM21P-M280
Interface	SATA 3.0 (6Gb/s)
Connector	M.2 B & M key
Form Factor	M.2 2280-D3-B-M & M.2 2280-S3-B-M
NAND Flash Type	MLC
Capacity	32GB~512GB
External DRAM	No
Sustained Read Performance (MB/sec)	Up to 480
Sustained Write Performance (MB/sec)	Up to 150
ECC Engine	Built-in up to 72-bit per 1K bytes BCH ECC
IOPS (4K Random Write)	40K
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: 15G, 10 ~ 2000 Hz/sine
Operating Voltage	3.3 V ± 5%
Power Consumption	Active mode: 695mA & Idle mode: 135 mA
Dimension (L x W x H)	80.00mm x 22.00mm x 3.60mm
MTBF (hours)	>1,000,000

Mechanical Specification

Unit: mm

For more information,
contact your Apacer representative

Global Presence