Apacer

The Most **Reliable**
Storage For Industries

PT220-M280

Apacer

PT220-M280

Overview

Apacer PT220-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, PT220-M280 delivers outstanding performance in data transfer, reaching up to 222,000/280,000 and 2,470/1,785 MB/s in IOPS and sequential read/write. The extreme thin and light form factor makes PT220-M280 the ideal choice for mobile computing systems, which appears to be the trend in near future.

In terms of security, data integrity can be assured at multiple points in the path to enable reliable delivery of data transfers with End-to-End Data Protection. Regarding reliability, PT220-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, PT220-M280 is compliant with PCIe Gen3 x4 interface standard so that it can operate on power management modes, which greatly save on power consumption.
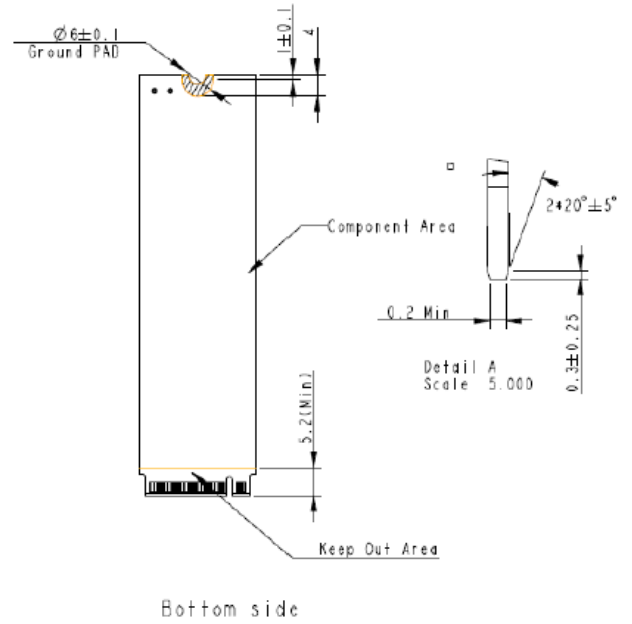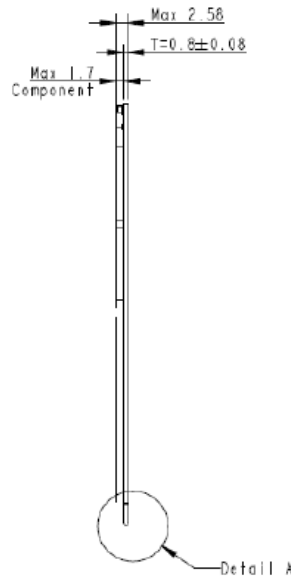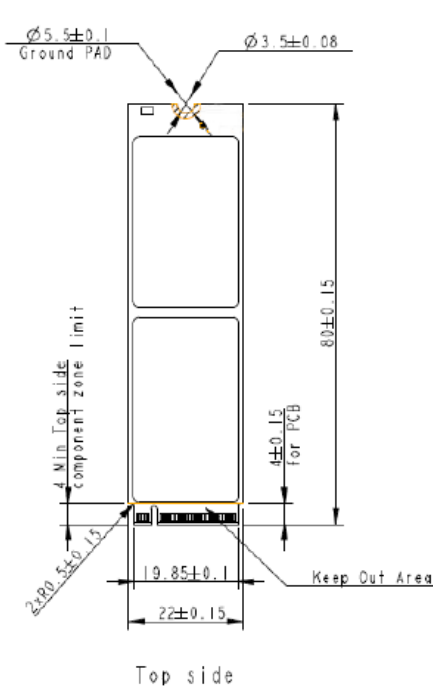
Feature

- Adopts advanced LDPC ECC engine with 3D NAND flash memory to improve reliability
- Global Wear Leveling
- Flash bad-block management
- Flash Translation Layer: Page Mapping

- S.M.A.R.T.
- DataDefender™
- TRIM support
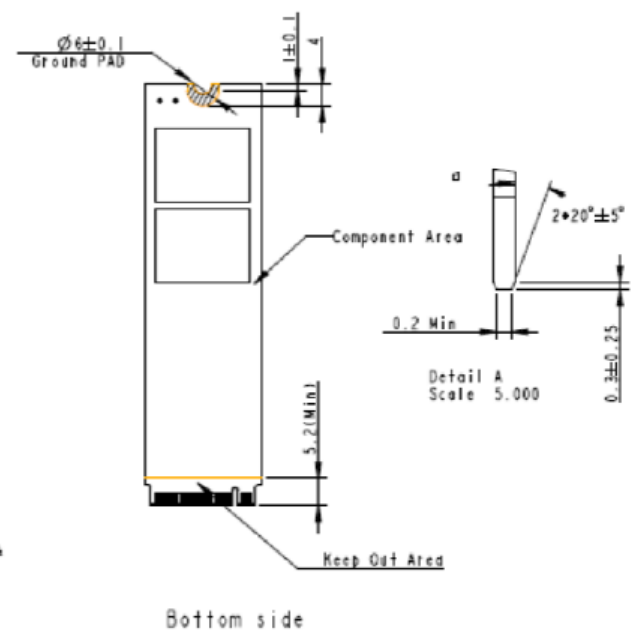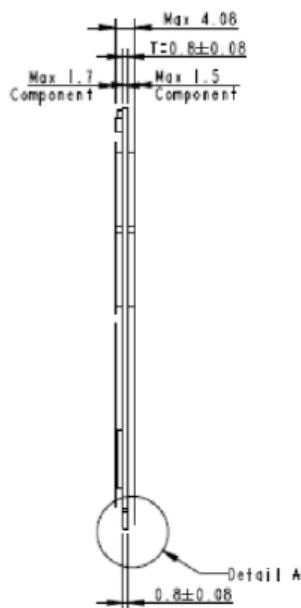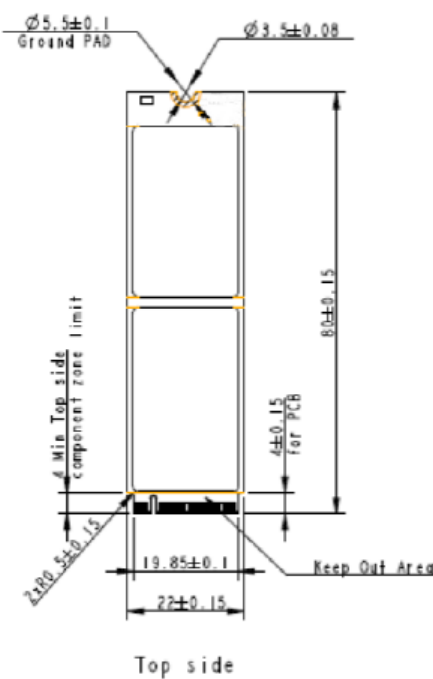- Hyper Cache Technology
- NVMe Secure Erase

Specifications

Model	PT220-M280
Interface	PCIe Gen3 x4
Connector	M.2 M Key
Form Factor	M.2 2280 single side, M Key: 128GB M.2 2280 double side, M Key: 256GB, 512GB, 1TB
NAND Flash Type	3D TLC
Capacity	128GB ~ 1TB
External DRAM	No
Sequential Read Performance (MB/sec)	Up to 2400
Sequential Write Performance (MB/sec)	Up to 2240
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	327K
Standard Operating Temperature (˚C)	0 ~ + 70
Extended Operating Temperature (˚C)	-
Storage Temperature (˚C)	-55 ~ + 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 modActive mode: 1210 mA / Idle mode: 240 mA
Dimension (L x W x H)	Single side: 22.00 x 80.00 x 2.58 mm (max) Double side: 22.00 x 80.00 x 4.08 mm (max)
MTBF (hours)	>3,000,000

Mechanical Specification

Single Side

Top side

Detail A

Bottom side

Ø5.5±0.1 Ground PAD
Ø3.5±0.08
Ø6±0.1 Ground PAD
Max 2.58
T=0.8±0.08
Max 1.7 Component
1±0.1
4
80±0.15
4 Min Top side Component zone limit
4±0.15 for PCB
2xR0.5±0.15
19.85±0.1
22±0.15
Keep Out Area
Component Area
2×20°±5°
0.2 Min
0.3±0.25
Detail A Scale 5.000
5.2(Min)

Double Side

Top side

Detail A

Bottom side

Ø5.5±0.1 Ground PAD
Ø3.5±0.08
Ø6±0.1 Ground PAD
Max 4.08
T=0.8±0.08
Max 1.7 Component
Max 1.5 Component
1±0.1
4
80±0.15
4 Min Top side Component zone limit
4±0.15 for PCB
2xR0.5±0.15
19.85±0.1
22±0.15
Keep Out Area
0.8±0.08
Component Area
2×20°±5°
0.2 Min
0.3±0.25
Detail A Scale 5.000
5.2(Min)

Unit: mm

For more information, contact your Apacer representative

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