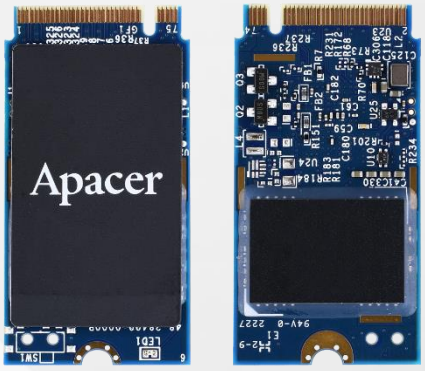
Apacer

The Most **Reliable** Storage For Industries

PT220-M242



PT220-M242

Overview

Apacer PT220-M242 is the fastest SSD designed as M.2 2242 mechanical dimensions which provides full compliance with PCIe Gen3 x4 interface and NVMe 1.3 specifications, allowing it to operate in power management modes and greatly save on power consumption.

Built with a powerful PCIe controller that supports on-the-module ECC as well as efficient Wear Leveling scheme, PT220-M242 delivers outstanding performance in data transfer, reaching up to 158,000/303,000 and 2,400/2,105 MB/s in IOPS and sequential read/write. With the compact and high-speed storage, PT220-M242 is the ideal choice for larger, faster hosts deployed in a wide range of applications that require outstanding performance.

PT220-M242 utilizes 3D NAND for higher capacity up to 1TB and provides more power efficiency than 2D NAND. The PCIe SSD is not only implemented with LDPC (Low Density Parity Check) ECC engine to extend SSD endurance and increase data reliability, but also equipped with a built-in thermal sensor to monitor the temperature of the SSD via S.M.A.R.T commands and configured with thermal throttling to dynamically adjust frequency scaling to enhance data reliability and provide sustained performance while overheating.

To ensure that products continue to operate normally in high vibration and under extreme environmental changes, Apacer also provides Sidefill technology to increase product reliability and resistance to various thermal and mechanical shocks as well as heatsink design to help keep an SSD cool and functioning correctly. For highly-intensive applications, End-to-End Data Protection ensures that data integrity can be assured at multiple points in the path to enable reliable delivery of data transfers.

In terms of security, Advanced Encryption Standard (AES) ensures data security and provides users with peace of mind knowing their data is safeguarded at all times. PT220-M242 also adopts the latest Page Mapping file translation layer and comes with various implementations including power saving modes, flash block management, S.M.A.R.T., TRIM, Hyper Cache technology, DataDefender™ and DataRAID™. With its exceptional performance, trustable reliability and cost effectiveness, PT220-M242 is definitely the ideal storage or cache solution for a variety of applications ranging from industrial, imaging, computing to enterprise markets.

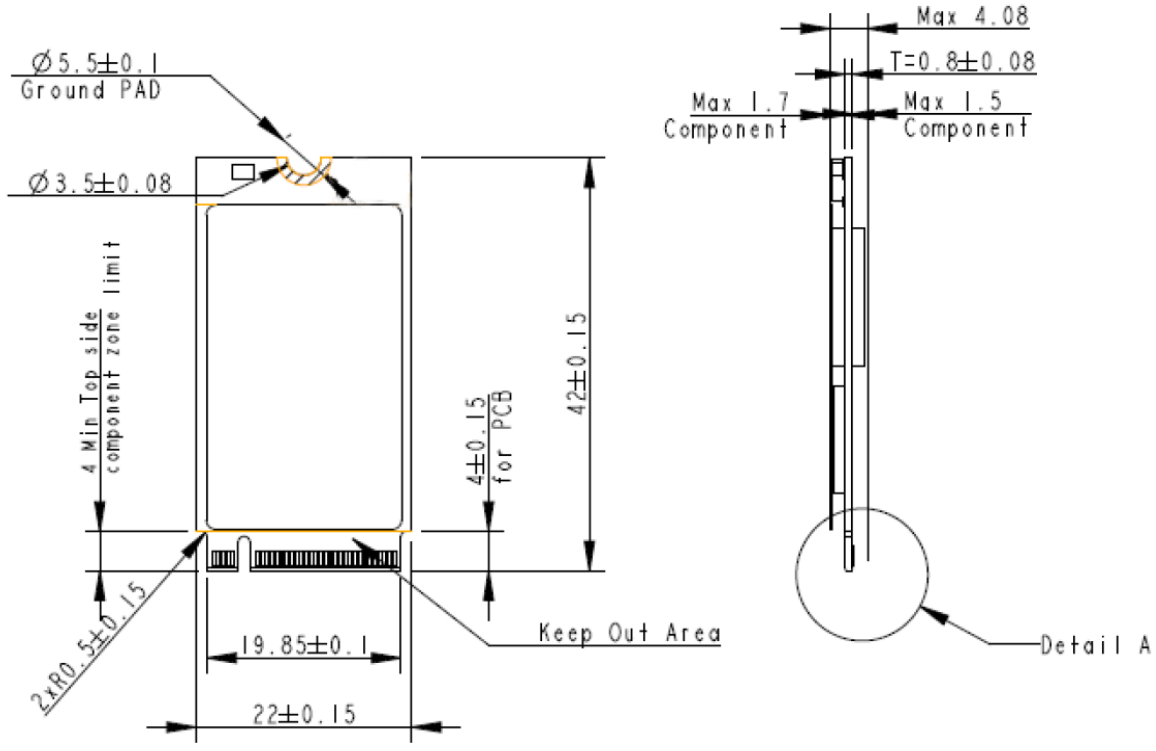
Feature

- Adopts advanced LDPC ECC engine with 3D NAND flash memory to improve reliability
- Heatsink technology
- Global Wear Leveling
- Flash bad-block management
- Flash Translation Layer: Page Mapping
- S.M.A.R.T.
- DataRAID™
- DataDefender™
- TRIM support
- Hyper Cache Technology
- NVMe Secure Erase

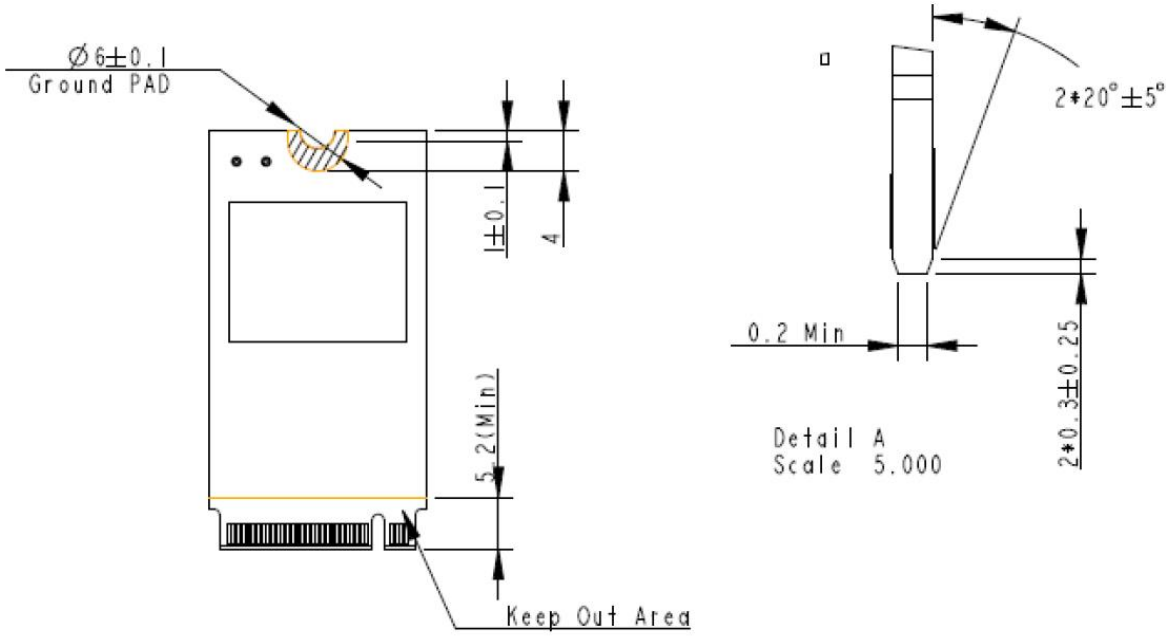
Specifications

Model	PT220-M242
Interface	PCIe Gen3 x4
Connector	M.2 M Key
Form Factor	M.2 2242
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 2105
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	303K
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 mode: 1235 mA / Idle mode: 240 mA
Dimension (L x W x H)	22.00 x 42.00 x 4.08 (max) (mm)
MTBF (hours)	>3,000,000

Mechanical Specification



Top side



Bottom side

Unit: mm

Apacer

industrial.apacer.com

For more information, contact your Apacer representative

Global Presence

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

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

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

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

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

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