

Apacer

The Most **Reliable**
Storage For Industries

SV25P-M242



Overview

Apacer SV25P-M242 is the next generation Solid State Drive (SSD) with compact size and great performance. Designed in SATA 6 Gb/s interface, SV25P-M242 provides full compliance with the latest SATA Revision 3.2 interface specifications and delivers exceptional read/write speed, making it the leading add-in storage solution for future host computing systems.

Utilizing 3D NAND for higher capacity up to 480GB and providing more power efficiency than 2D NAND, SV25P-M242 is built with a powerful SATA controller that supports on-the-module ECC as well as efficient wear leveling scheme and implemented with LDPC (Low Density Parity Check) ECC engine to extend SSD endurance and increase data reliability. Featuring CorePower technology, SV25P-M242 guarantees data integrity and stability of data transmission in the event of an unexpected power loss by implementing backup power supply with tantalum capacitors that allow sufficient time to move all cached data to NAND flash.

Furthermore, SV25P-M242 is equipped with a built-in thermal sensor to monitor the temperature of the SSD via S.M.A.R.T commands to prevent overheating. To ensure that products continue to operate normally in high vibration and under extreme environmental changes, Apacer provides Sidefill technology to increase product reliability and resistance to thermal and mechanical stress. 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.

Security-wise, Advanced Encryption Standard (AES) ensures data security and provides users with peace of mind knowing their data is safeguarded against unauthorized use at all times. SV25P-M242 also adopts the latest page mapping file translation layer and comes with various implementations including flash block management, TRIM, power saving modes, Hyper Cache technology, over-provisioning, DataRAID, and SMART Read Refresh.

With exceptional performance, trustable reliability, and enhanced data protection, SV25P-M242 is definitely the ideal storage or cache solution for a variety of applications ranging from industrial, imaging, computing to enterprise markets.



Feature

- Low-Density Parity-Check (LDPC) Code
- Global Wear Leveling
- Flash bad-block management
- Flash Translation Layer: Page Mapping
- S.M.A.R.T.
- Device Sleep
- ATA Secure Erase
- SATA Power Management
- TRIM
- Hyper Cache Technology
- Over-provisioning
- DataRAID
- SMART Read Refresh

Specifications

Model	SV25P-M242
Interface	SATA 3.2 (6Gb/s)
Connector	M.2 B & M key
Form Factor	M.2 2242-D5-B-M
NAND Flash Type	3D TLC
Capacity	120~480GB
External DRAM	No
Sustained Read Performance (MB/sec)	Up to 560
Sustained Write Performance (MB/sec)	Up to 510
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPs (4K Random Write)	71K
Standard Operating Temperature (°C)	0 ~ + 70
Extended Operating Temperature (°C)	-40 ~ + 85
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	3.3 V ± 5%
Power Consumption	Active mode: 405 mA / Idle mode: 70 mA
Dimension (L x W x H)	42.00 mm x 22.00 mm x 3.88 mm
MTBF (hours)	>3,000,000

Mechanical Specification

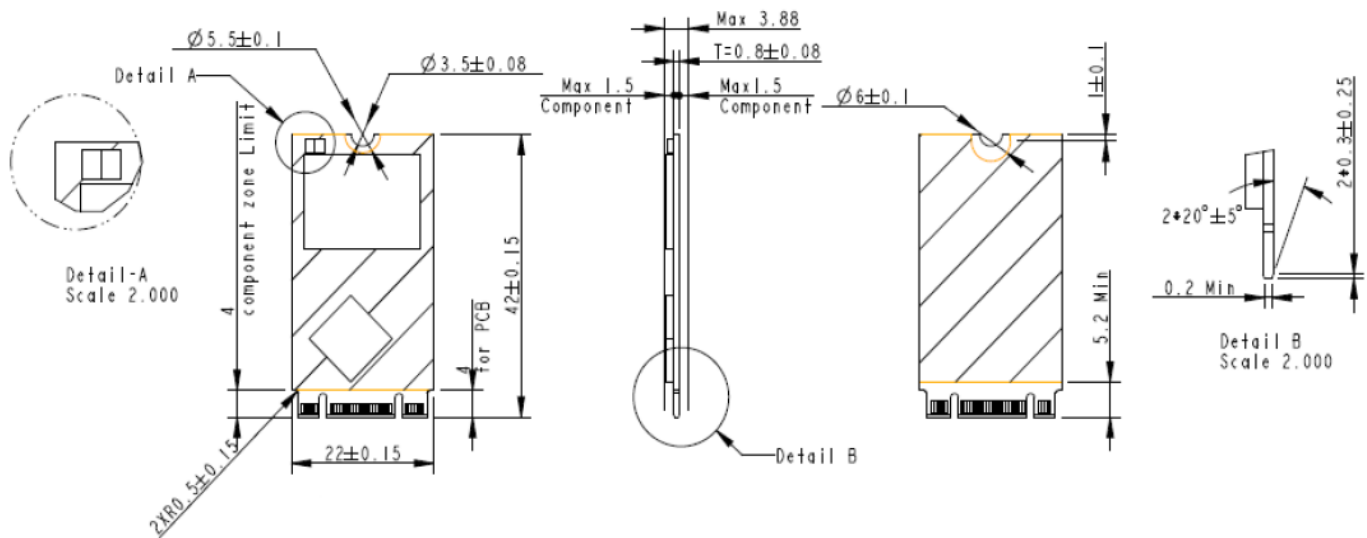


Figure 9-1 Physical Dimensions

Unit: mm

For more information,
contact your Apacer representative

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