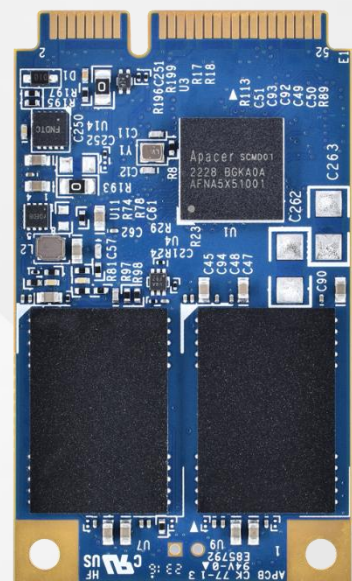# Apacer
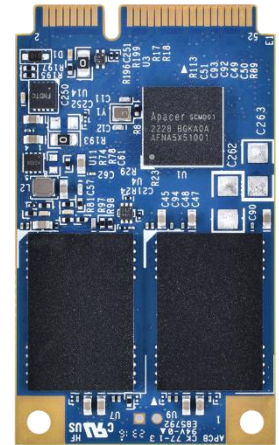
The Most **Reliable**
Storage For Industries

SV25P-300

Overview

Apacer's SV25P-300 is a well-balanced solid-state disk (SSD) drive with a standard form factor and great performance. Designed with a SATA 6 Gb/s interface, SV25P-300 fully complies with the latest SATA Revision 3.2 interface specifications and delivers exceptional performance, making it the ideal companion for heavy-loading industrial or server operations.

Utilizing 3D NAND for higher capacities up to 1920GB and providing superior power efficiency compared to 2D NAND, SV25P-300 is equipped with a robust SATA controller supporting on-the-module ECC and an efficient wear-leveling scheme. It also incorporates an LDPC (Low Density Parity Check) ECC engine to extend SSD endurance and enhance data reliability. With CorePower technology, SV25P-300 ensures data integrity and transmission stability even during unexpected power losses, thanks to a backup power supply featuring tantalum capacitors that allow ample time to transfer all cached data to NAND flash. Moreover, SV25P-300 includes a built-in thermal sensor to monitor SSD temperature via S.M.A.R.T commands, effectively preventing overheating issues.

For demanding applications, End-to-End Data Protection guarantees data integrity at multiple points along the transfer path, enabling reliable data delivery.

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-300 also adopts the latest page mapping file translation layer and comes with various implementations including flash block management, TRIM, ATA secure erase, device sleep, Hyper Cache technology, over-provisioning, power saving modes, DataRAID, and SMART Read Refresh.

With exceptional performance, trustable reliability, and enhanced data protection, SV25P-300 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

· TRIM

· Hyper Cache Technology

· Over-provisioning

· SATA Power Management

· DataRAID

· SMART Read Refresh

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Specifications

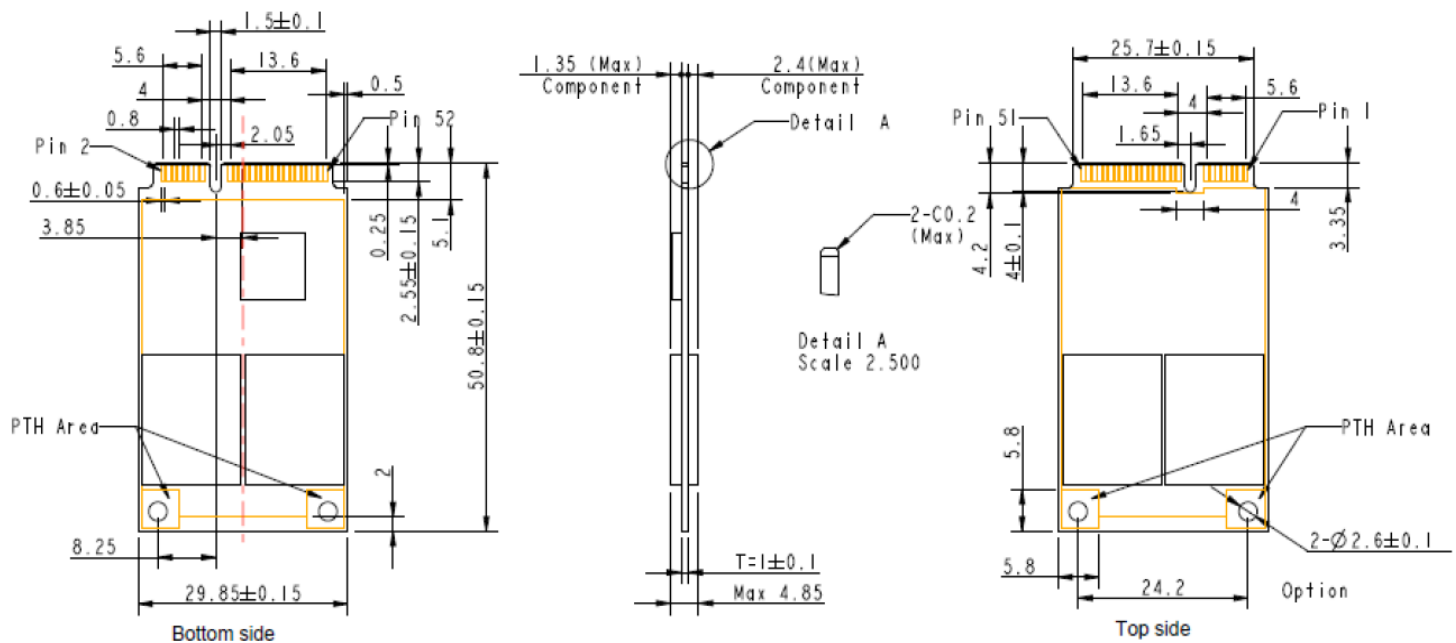|	
Model	SV25P-300
Interface	SATA 3.2 (6Gb/s)
Connector	52-pin mSATA connector
Form Factor	JEDEC MO-300
NAND Flash Type	3D TLC
Capacity	120~1920GB
External DRAM	No
Sustained Read Performance (MB/sec)	Up to 560
Sustained Write Performance (MB/sec)	Up to 515
ECC Engine	Low-Density Parity-Check (LDPC) Code
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: 395 mA / Idle mode: 70 mA
Dimension (L x W x H)	50.80 x 29.85 x 4.85, unit: 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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