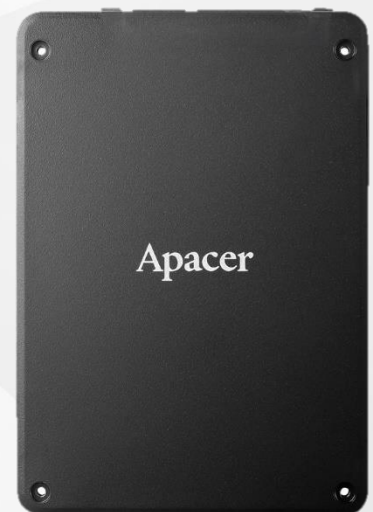


# Apacer

The Most **Reliable**  
Storage For Industries

SH25P-25



### Overview

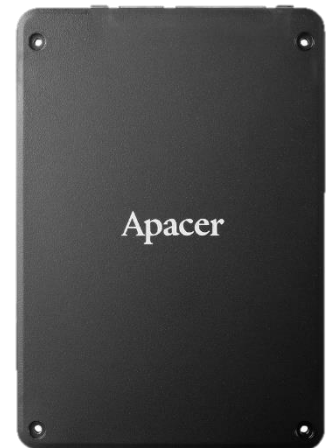
Apacer's SH25P-25 is a well-balanced solid-state disk (SSD) drive with a standard form factor and excellent performance. Designed with a SATA 6 Gb/s interface, SH25P-25 fully complies with the latest SATA Revision 3.2 interface specifications and delivers exceptional read/write speeds, making it the ideal companion for heavy-duty industrial or server operations.

Utilizing 3D NAND technology to offer expanded capacity of up to 640GB and boasting superior power efficiency compared to 2D NAND, SH25P-25 is equipped with a robust SATA controller supporting on-the-module ECC and an efficient wear leveling scheme. Additionally, it incorporates an LDPC (Low Density Parity Check) ECC engine and SLC-liteX technology, supporting P/E cycles of up to 100,000 times to extend SSD endurance and enhance data reliability.

Featuring CorePower technology, SH25P-25 guarantees the integrity and stability of data transmission in the event of an unexpected power loss. This is achieved through a backup power supply featuring tantalum capacitors, allowing sufficient time to transfer all cached data to NAND flash. Furthermore, SH25P-25 is outfitted with a built-in thermal sensor to monitor the SSD temperature via S.M.A.R.T commands, preventing overheating. For highly-intensive applications, End-to-End Data Protection guarantees data integrity at multiple points along the transmission path, enabling dependable 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. SH25P-25 also adopts the latest page mapping file translation layer and comes with various implementations including flash block management, TRIM, ATA secure erase, device sleep, DataRAID, SMART Read Refresh, and power saving modes.

With exceptional performance, trustable reliability, and enhanced data protection, SH25P-25 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.
- ATA Secure Erase
- Device Sleep
- TRIM
- SLC-liteX (P/E cycles: 100K)
- DataRAID
- SMART Read Refresh
- SATA Power Management

## Specifications

<b>Model</b>	SH25P-25
<b>Interface</b>	SATA 3.2 (6Gb/s)
<b>Connector</b>	(7+15) pin
<b>Form Factor</b>	2.5"
<b>NAND Flash Type</b>	3D TLC
<b>Capacity</b>	40GB~640GB
<b>External DRAM</b>	N
<b>Sustained Read Performance (MB/sec)</b>	Up to 560
<b>Sustained Write Performance (MB/sec)</b>	Up to 505
<b>ECC Engine</b>	Low-Density Parity-Check (LDPC) Code
<b>IOPs (4K Random Write)</b>	63K
<b>Standard Operating Temperature ( °C )</b>	0 ~ + 70
<b>Extended Operating Temperature ( °C )</b>	-40 ~ + 85
<b>Storage Temperature ( °C )</b>	-55 ~ + 100
<b>Thermal sensor</b>	Yes
<b>Shock</b>	Operation: 50G/11ms (compliant with MIL-STD-202G) Non-operation: 1500G/0.5ms (compliant with MIL-STD-883K)
<b>Vibration</b>	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)
<b>Operating Voltage</b>	5.0 V ± 5%
<b>Power Consumption</b>	Active mode: 330 mA / Idle mode: 60 mA
<b>Dimension (L x W x H )</b>	7mm: 100.00 x 69.85 x 6.90mm
<b>MTBF (hours)</b>	>3,000,000

## Mechanical Specification

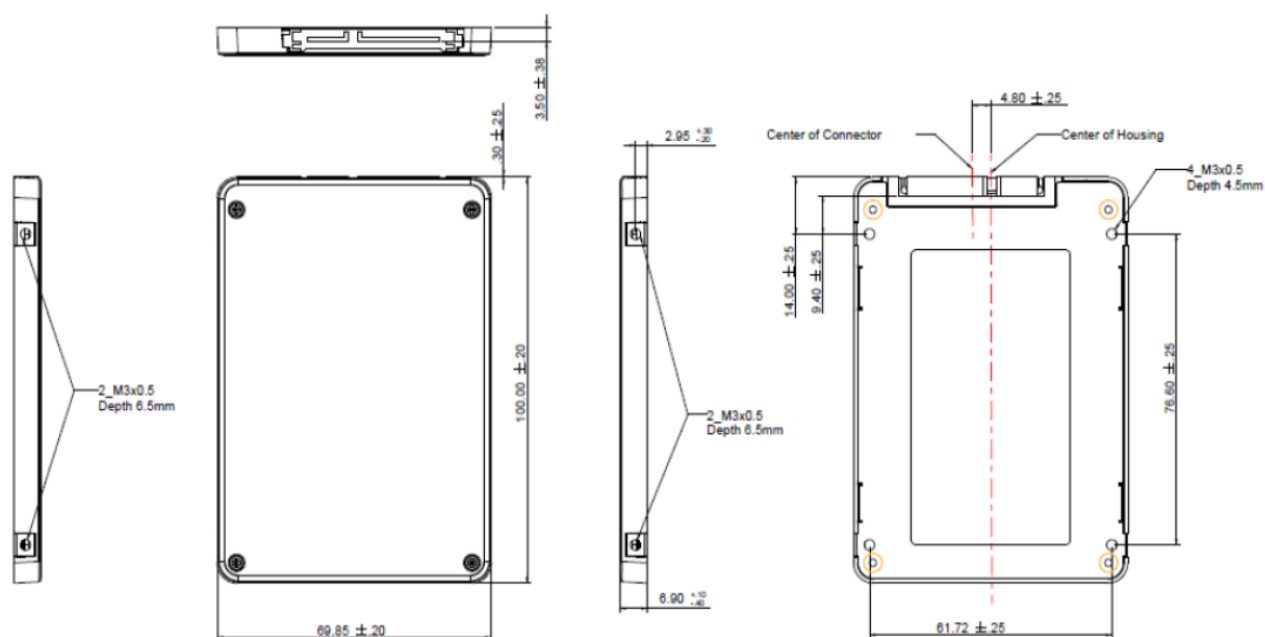


Figure 9-1 Physical Dimensions

Unit: mm

For more information,  
contact your Apacer representative

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