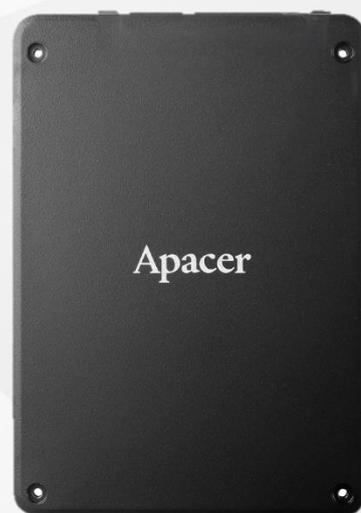


Apacer

The Most **Reliable**
Storage For Industries

SH25P-25



Overview

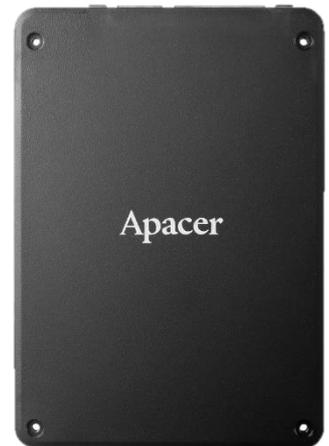
Apacer's SH25P-25 is a well-balanced solid-state disk (SSD) drive with a standard form factor and excellent performance. Designed with a SATA 6 Gb/s interface, SH25P-25 fully complies with the latest SATA Revision 3.2 interface specifications and delivers exceptional read/write speeds, making it the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

Model	SH25P-25
Interface	SATA 3.2 (6Gb/s)
Connector	(7+15) pin
Form Factor	2.5"
NAND Flash Type	3D TLC
Capacity	40GB~640GB
External DRAM	N
Sustained Read Performance (MB/sec)	Up to 560
Sustained Write Performance (MB/sec)	Up to 505
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPs (4K Random Write)	63K
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	5.0 V ± 5%
Power Consumption	Active mode: 330 mA / Idle mode: 60 mA
Dimension (L x W x H)	7mm: 100.00 x 69.85 x 6.90mm
MTBF (hours)	>3,000,000

Mechanical Specification

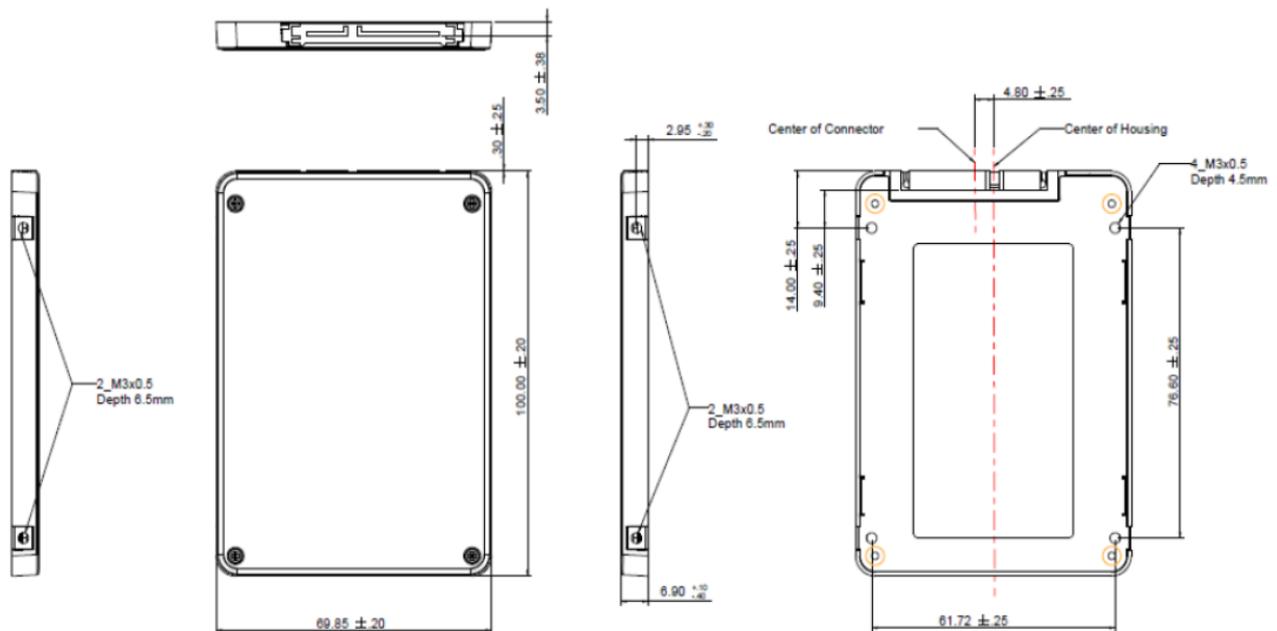


Figure 9-1 Physical Dimensions

Unit: mm

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