Apacer

The Most **Reliable**
Storage For Industries

SV24D-25

INDUSTRIAL SSD

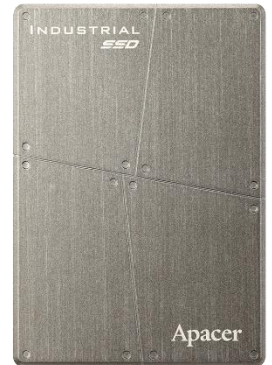Apacer
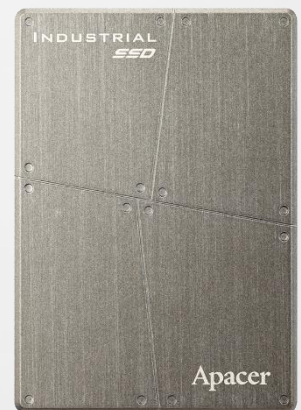
Rugged Series

Overview

SV24D-25

Tailor-made Rugged Solutions for Rugged Applications

Apacer SV24D is a series of rugged, defense-grade solid-state drives and modules specifically designed for rugged applications to protect highly sensitive data. Utilizing 3D NAND and providing more power efficiency than 2D NAND, SV24D is implemented with LDPC (Low Density Parity Check) ECC engine to extend SSD endurance and increase data reliability.

Incorporating hardware-based AES 256-bit encryption and SMART Read Refresh™, Apacer SV24D not only offers high performance, reliability and data security, but also extends the expected operational lifetime multiplied by Global Wear Leveling. Data integrity and stability of data transmission can be further guaranteed by DataDefender™, ensuring that products are protected from power disruptions and can function smoothly even in harsh environments. Moreover, the level of protection against data loss increases with DataRAID™ to provide fault tolerance and improve data availability in the event of a drive failure.

Multiple Protection Technologies that Safeguard Sensitive Data

In addition to the aforementioned built-in implementations, Apacer SV24D provides a wide range of optional solutions and cutting-edge technologies featuring multiple approaches to protection, including TCG Opal 2.0/SED, Instant Keychange, MIL Erase, Digital Destruction and Write Protect. These security features can be triggered either via software or hardware methods, except TCG Opal 2.0 which can only be activated via software commands. With these technologies available for employment, mission-critical data is safeguarded against unauthorized access at all times and no data will be compromised as Apacer SV24D adheres to MIL compliance standards.

Withstood 8 Tough US DoD Military Standard Tests

Apacer SV24D-25 is a combination of the latest firmware, software and hardware technologies that guarantee that rugged solutions are perfectly customized and engineered for customers' requirements. With protective technologies and robust design, Apacer SV24D provides the highest standard of reliability – whether in terms of data security, data integrity and data protection. The US Department of Defense has a complex series of MIL standards. Apacer rugged series has passed their tests that cover:

1. **Shock**

2. **Vibration:** Reaches the highest requirements of MIL-STD 810G 514.6 for Fixed Wing Jet Aircraft.

3. **Humidity**

4. **High/Low Temp.**

5. **Thermal Shock:** Exposes components to high and low temperatures that cycle rapidly.

6. **Altitude:** Simulates the effects of high pressure in an aircraft flying at 80,000 feet.

7. **Salt Fog:** Uses a five percent salt spray to simulate accelerated corrosion in a relatively slow airflow environment.

8. **Radiation:** Simulates the full-spectrum interference environment that heat and sunlight can create.

| **Military Test** ★★★★★	**Shock** MIL-STD-202G MIL-STD-883K	**Vibration** MIL-STD-810G	**Humidity** MIL-STD-810G Method 507.5	**High/ Low Temp.** MIL-STD-810G Method 501.5 MIL-STD-810G Method 502.5
	Thermal Shock MIL-STD-810G Method 503.5 Procedure I-C	**Altitude** MIL-STD-810G Method 500.5	**Salt fog** MIL-STD-810G Method 509.5	**Radiation Test** MIL-STD-810G Method 505.5 procedur 2

Feature

- SV24D rugged series
- Supports TCG Opal 2.0 / AES 256-bit encryption
- Low-Density Parity-Check (LDPC) Code
- Global Wear Leveling
- Power Failure Management
- SMART Read Refresh™

- S.M.A.R.T.
- ATA Secure Erase
- TRIM
- Over-Provisioning
- End-to-End Data Protection
- Mechanical design available in 9.5mm height

Specifications

Model	SV24D-25
Interface	SATA 3.2 (6Gb/s)
Connector	(7+15) pin
Form Factor	2.5"
NAND Flash Type	3D TLC
Capacity	120GB~1920GB
External DRAM	Yes
Sustained Read Performance (MB/sec)	Up to 560
Sustained Write Performance (MB/sec)	Up to 495
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	85K
Standard Operating Temperature (°C)	0 ~ + 70
Wide Temperature (°C)	-40 ~ + 85
Storage Temperature (°C)	-55 ~ + 100
Shock	MIL-STD-202G, Condition A MIL-STD-883K, Condition B
Vibration	MIL-STD-810G, Method 514.6, Procedure I, Category 24 MIL-STD-810G, Method 514.6, Procedure I, Category 7
Operating Voltage	5V ± 10%
Power Consumption	Active mode: 435 mA / Idle mode: 65 mA
Dimension (L x W x H)	100.00 x 69.84 x 9.30 (mm)
MTBF (hours)	>5,000,000

Mechanical Specification
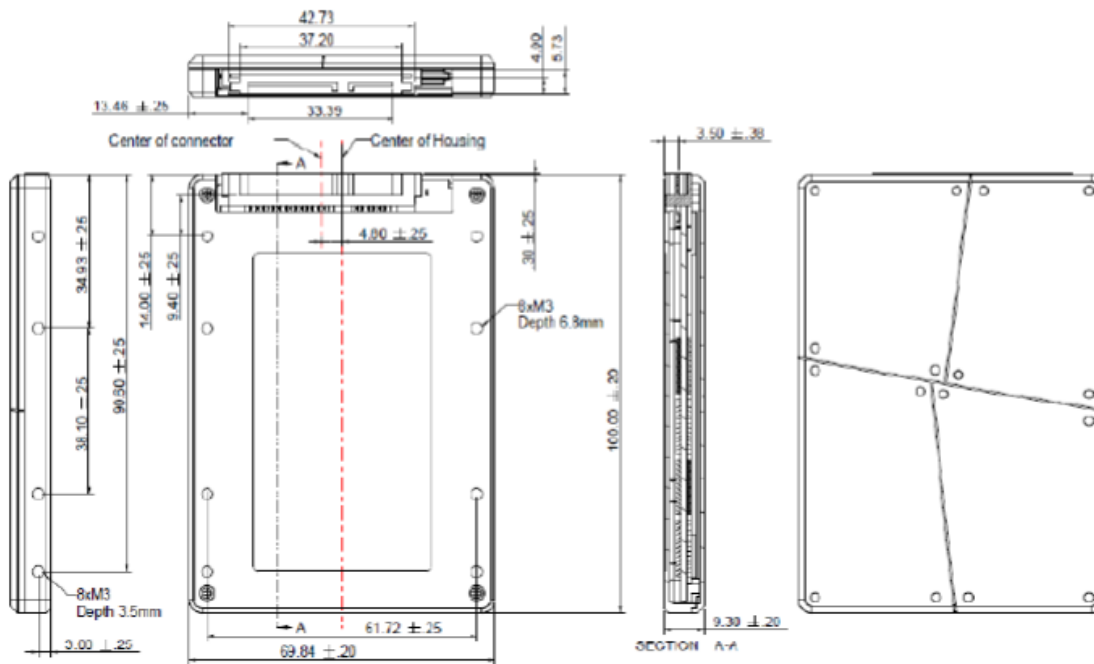
Unit: mm

For more information,
contact your Apacer representative

Global Presence