Apacer

The Most **Reliable** Storage For Industries

SV240-297 FIPS 140-2

FIPS VALIDATED 140-2 TM

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Apacer

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SV240-297 FIPS 140-2

Overview

Apacer's SV240-297 FIPS 140-2 is a solid-state drive with military-grade encryption that conforms to the FIPS 140-2 Level 2 cryptographic standard, designed with compact form factor (JEDEC MO-297) and compliant with SATA III standard with excellent performance. Utilizing 3D NAND for higher capacity up to 960GB and providing more power efficiency than 2D NAND, the hardware encrypted SSD provides enhanced data security and delivers exceptional read/write speed, making it the ideal solution for industries that require the high demand for FIPS 140-2 Certification.

The FIPS 140-2 validated SV240-297 FIPS 140-2 incorporates a variety of cutting-edge technologies featuring multiple approaches to data protection. Designed and built under the rigorous testing verification process conducted by the National Institute of Standards for Technology (NIST), the FIPS validation provides the strength of encryption algorithms, unbreakable user authentication methods and secure Data Encryption Key (DEK) management to eliminate the most sophisticated cybersecurity threats. The Level 2 validation ensures tamper-evidence through the use of special coatings, seals and labels to prevent security information from being detected. The SSD also delivers enhanced data security storage by implementing the AES 256-bit hardware encryption and Opal specifications.

In addition to data safety, SV240-297 FIPS 140-2 also features a variety of reliability features implemented on both hardware and firmware levels. On the hardware level, SV240-297 FIPS 140-2 is built with not only a powerful SATA controller that supports on-the-module ECC as well as LDPC (Low Density Parity Check) ECC engine to extend SSD endurance and increase data reliability, but also a built-in thermal sensor to monitor the temperature of the SSD via S.M.A.R.T health monitoring to prevent overheating.

On the firmware level, SV240-297 FIPS 140-2 comes with an error-checking mechanism called End-to-End Data Protection to ensure all data in transit is protected against transient errors, thereby enhancing protection as well as the trustworthiness and reliability of the drive. SMART Read Refresh™ helps avoid read disturbances and ensure the health of all blocks in the NAND flash, thereby extending 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. With these technologies available for employment, mission-critical data is safeguarded against unauthorized access and protected from errors and power outages at all times, and no data will be compromised as SV240-297 FIPS 140-2 adheres to the FIPS 140-2 Level 2 standard.

Apacer SV240-297 FIPS 140-2 is a military-grade industrial SSD designed for security-conscious companies and organizations that require high standard for data cryptography. With exceptional performance, enhanced security and reliability features, SV240-297 FIPS 140-2, combined with the capability for customization, provides industry-best secure SSD solutions with FIPS 140-2 validation for customers ranging from government, defense and healthcare sectors to financial institutions to tailor to their needs.

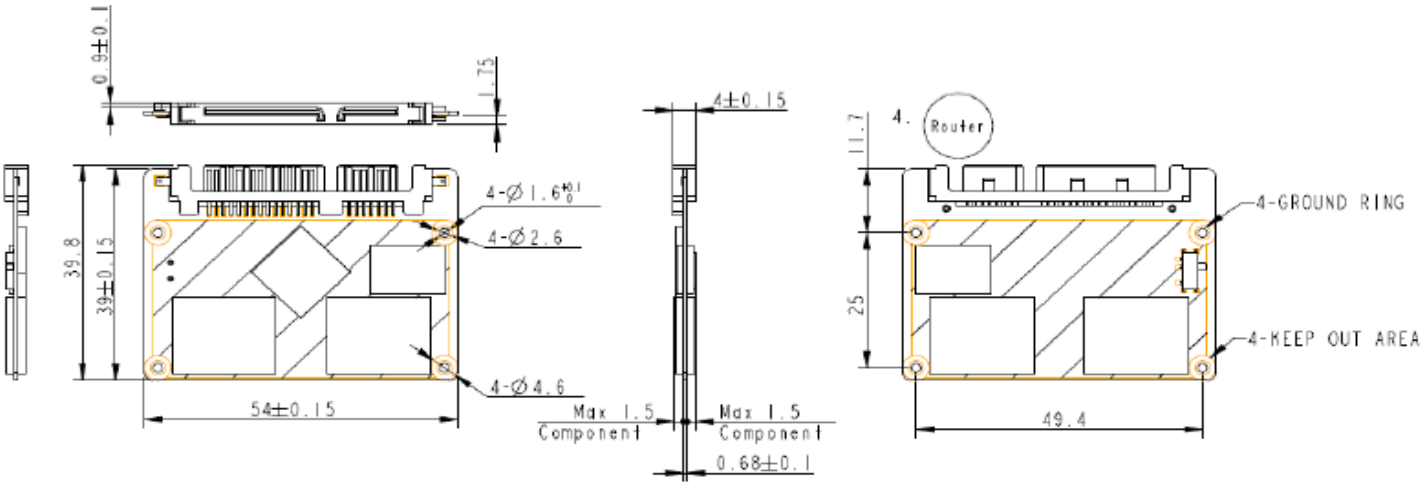
Feature

- FIPS 140-2 Validated
- Supports TCG Opal 2.0 / AES 256-bit Encryption
- Wide Temperature
- SMART Read Refresh™
- S.M.A.R.T.

Specifications

Model	SV240-297 FIPS 140-2
Interface	SATA 3.2 (6Gb/s)
Connector	(7+15) pin
Form Factor	JEDEC MO-297
NAND Flash Type	3D TLC
Capacity	240GB~960GB
External DRAM	Yes
Sustained Read Performance (MB/sec)	Up to 560
Sustained Write Performance (MB/sec)	Up to 500
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPs (4K Random Write)	84K
Standard Operating Temperature (°C)	0 ~ + 70
Extended Operating Temperature (°C)	-40 ~ + 85
Storage Temperature (°C)	-55 ~ + 100
H/W Write Protect	-
Thermal Sensor	Yes
Shock	Operating: Acceleration, 50(G)/11(ms)/half sine (compliant with MIL-STD-202G) Non-operating: Acceleration, 1500(G)/0.5(ms)/half sine (compliant with MIL-STD-883K)
Vibration	Operating:7.69 GRMS, 20~2000 Hz/random (compliant with MIL-STD-810G) Non-operating:4.02 GRMS, 15~2000 Hz/random (compliant with MIL-STD-810G)
Operating Voltage	5V ± 10%
Power Consumption	Active mode: 405 mA / Idle mode: 60 mA
Dimension (L x W x H)	54.00 x 39.80 x 4.00 (mm)
MTBF (hours)	>3,000,000

Mechanical Specification



Unit: mm

For more information, contact your Apacer representative

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