

# Apacer

The Most **Reliable**  
Storage For Industries

**ST250-25 CET**



### Overview

Apacer ST250-25 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, ST250-25 provides full compliance with the latest SATA Revision 3.2 interface specifications and delivers exceptional read/write speeds, making it the ideal companion for heavy-loading industrial or server operations.



Utilizing 3D NAND technology for capacities up to 2TB and offering superior power efficiency than 2D NAND, ST250-25 is equipped with a robust SATA controller supporting on-the-module ECC and efficient wear leveling scheme. It also features an LDPC (Low Density Parity Check) ECC engine to enhance SSD endurance and data reliability. Additionally, ST250-25 includes a built-in thermal sensor for monitoring SSD temperature via S.M.A.R.T commands, preventing overheating. Operating at a 6 Gb/s interface, it comes with Apacer's latest S.M.A.R.T. technology, tailored for monitoring and analyzing the lifespan of SATA interface SSDs. For demanding applications, End-to-End Data Protection ensures data integrity at multiple transfer points, facilitating reliable data delivery.

In terms of security, Advanced Encryption Standard (AES) provides robust protection, ensuring data is safeguarded against unauthorized access at all times. ST250-25 also incorporates various advanced features, including flash block management, DataDefender, ATA secure erase, TRIM, page mapping, device sleep, Hyper Cache technology, power saving modes, and SMART Read Refresh.

With its exceptional performance, proven reliability, and enhanced data protection, ST250-25 is an ideal storage or cache solution for a wide range of applications, from industrial and imaging to computing and 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.
- DataDefender
- ATA Secure Erase
- Device Sleep
- TRIM
- Hyper Cache Technology
- SATA Power Management
- DataRAID
- SMART Read Refresh

## Specifications

<b>Model</b>	ST250-25 CET
<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>	128GB~2TB
<b>External DRAM</b>	N
<b>Sustained Read Performance (MB/sec)</b>	Up to 560
<b>Sustained Write Performance (MB/sec)</b>	Up to 515
<b>ECC Engine</b>	Low-Density Parity-Check (LDPC) Code
<b>IOPs (4K Random Write)</b>	66K
<b>Standard Operating Temperature ( °C )</b>	CET -25°C to 85°C
<b>Extended Operating Temperature ( °C )</b>	-
<b>Storage Temperature ( °C )</b>	-55°C to 100°C
<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/sine (compliant with MIL-STD-810G)
<b>Operating Voltage</b>	5.0 V ± 5%
<b>Power Consumption</b>	Active mode: 275 mA / Idle mode: 50 mA
<b>Dimension (L x W x H )</b>	7mm:100.00 x 69.85 x 7.00mm
<b>MTBF (hours)</b>	>3,000,000

## Mechanical Specification

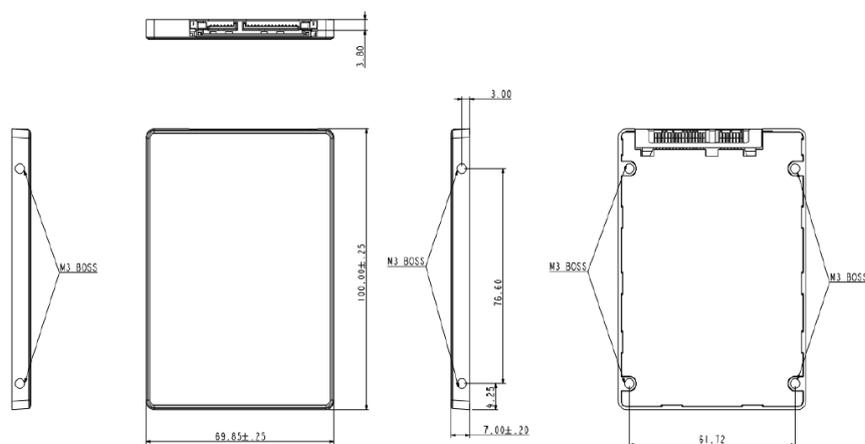


Figure 9-1 Physical Dimensions

For more information,  
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