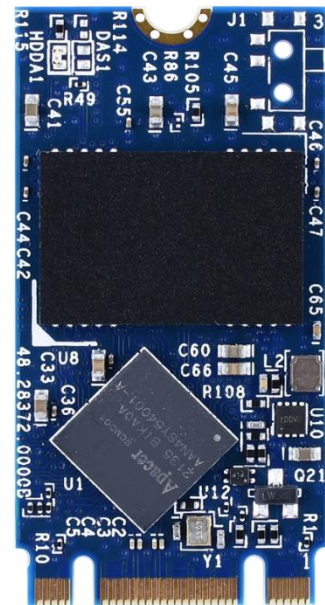


# The Most **Reliable** Storage For Industries

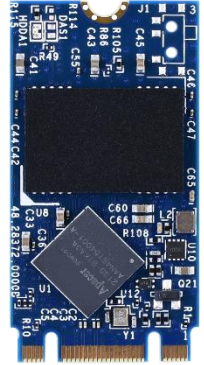
## ST250-M242

Commercial Extended Temperature



## Overview

Apacer ST250-M242 is the next-generation Solid State Drive (SSD) with compact and high-speed storage. Designed with a SATA 6 Gb/s interface, ST250-M242 provides full compliance with the latest SATA Revision 3.2 interface specifications and delivers exceptional read/write speeds, making it the leading add-in storage solution for future host computing systems.



Utilizing 3D NAND technology for capacities up to 1TB and offering superior power efficiency than 2D NAND, ST250-M242 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-M242 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, ST250-M242 offers robust data protection with Advanced Encryption Standard to safeguard against unauthorized access. It also incorporates various advanced features, including bad block management, DataDefender, ATA secure erase, TRIM, page mapping, device sleep, Hyper Cache technology, power saving modes, and Smart Read Refresh.

With exceptional performance, proven reliability, and enhanced data protection, ST250-M242 is the ideal storage or cache solution for a variety of applications, including industrial, imaging, computing, and enterprise markets.

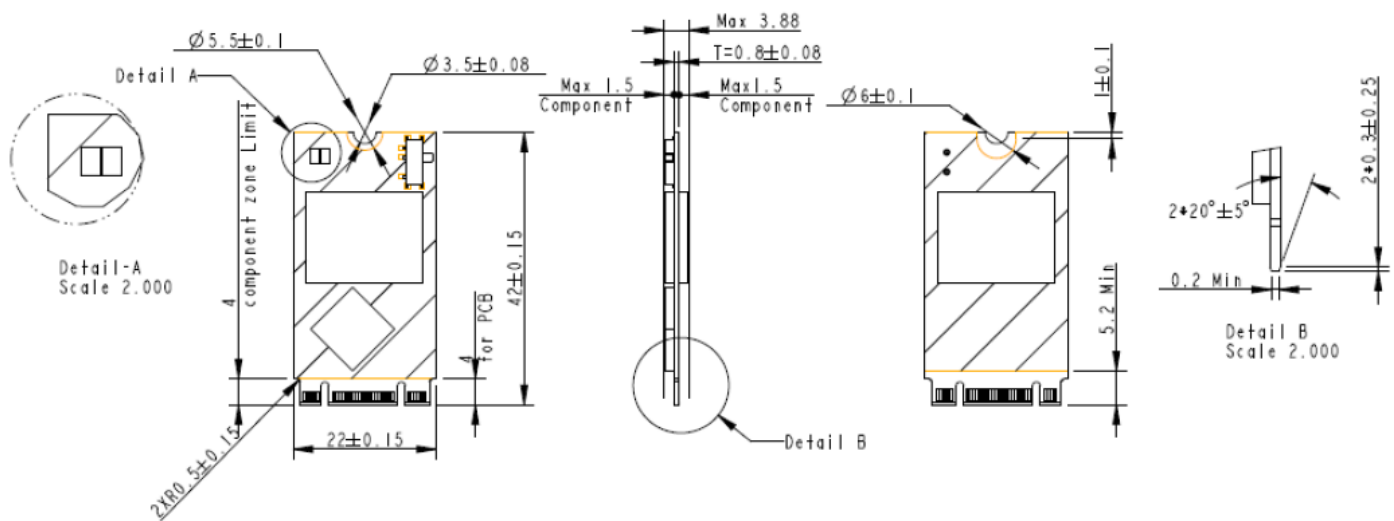
## Features

- Low-Density Parity-Check (LDPC) Code
- Global Wear Leveling
- Flash Bad-block Management
- Flash Translation Layer: Page Mapping
- S.M.A.R.T.
- DataDefender™
- Device Sleep
- ATA Secure Erase
- TRIM
- Hyper Cache Technology
- SATA Power Management
- SMART Read Refresh™

## Specifications

<b>Model Name</b>	ST250-M242 Commercial Extended Temperature
<b>Interface</b>	SATA 3.2 (6Gb/s)
<b>Connector</b>	75-pin SATA-based M.2 module pinout
<b>Form Factor</b>	Double-sided M.2 2242-D5-B-M
<b>NAND Flash Type</b>	3D TLC
<b>Capacity</b>	128GB~1TB
<b>External DRAM</b>	No
<b>Sustained Read Performance (MB/sec.)</b>	Up to 555
<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>	68K
<b>Standard Operating Temperature ( °C )</b>	CET: -25 ~ 85
<b>Extended Operating Temperature ( °C )</b>	-
<b>Storage Temperature ( °C )</b>	-55 ~ 100
<b>Housing</b>	-
<b>Thermal Sensor</b>	Yes
<b>Shock</b>	Operation: 50G, 11ms 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>	3.3 V $\pm$ 5%
<b>Power Consumption</b>	Active Mode: 400 mA / Idle Mode: 65 mA
<b>Dimension (L x W x H )</b>	42.00 x 22.00 x 3.80, unit: mm
<b>MTBF (Hours)</b>	>3,000,000

## Mechanical Specifications



**For more information,  
contact your Apacer representative**

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