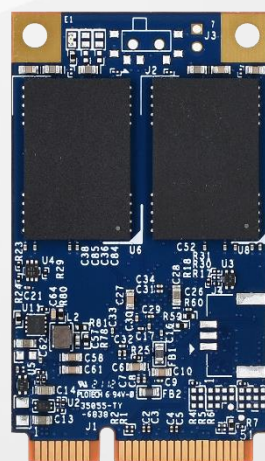# Apacer

The Most **Reliable**
Storage For Industries

ST250-300 CET

ST250-300 CET

Overview

Apacer's ST250-300 is a well-balanced solid-state disk (SSD) drive with a standard form factor and excellent performance. Designed with SATA-based connector pinouts and a SATA 6 Gb/s interface, ST250-300 fully complies with the latest SATA Revision 3.2 interface specifications, delivering exceptional read/write speeds. This makes it the ideal choice for heavy-loading industrial or server operations.

Utilizing 3D NAND technology for capacities up to 2TB and offering superior power efficiency than 2D NAND, ST250-300 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, ST250-300 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. ST250-300 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, ST250-300 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

- Device Sleep

- ATA Secure Erase

- TRIM

- Hyper Cache Technology

- SATA Power Management

- DataRAID

- SMART Read Refresh

Specifications

Model	ST250-300 CET
Interface	SATA 3.2 (6Gb/s)
Connector	52-pin mSATA connector
Form Factor	JEDEC MO-300
NAND Flash Type	3D TLC
Capacity	128GB-2TB
External DRAM	N
Sequential Read Performance (MB/sec)	Up to 560
Sequential Write Performance (MB/sec)	Up to 515
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	67K
Standard Operating Temperature (°C)	CET -25°C to 85°C
Extended Operating Temperature (°C)	-
Storage Temperature (°C)	-55°C to 100°C
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/sine (compliant with MIL-STD-810G)
Operating Voltage	3.3 V ± 5%
Power Consumption	Active mode: 410 mA / Idle mode: 65 mA
Dimension (L x W x H)	50.80 x 29.85 x 4.85, unit: mm
MTBF (hours)	>3,000,000

Mechanical Specification

Table 9-1 Physical Information

Parameter	Unit	128 GB	256 GB	512 GB	1 TB	2 TB
Length	mm	50.80 ± 0.15				
Width		29.85 ± 0.15				
Height (Max.)		4.85				
Weight	g ± 5%	5.05	5.42	6.16	6.62	6.54
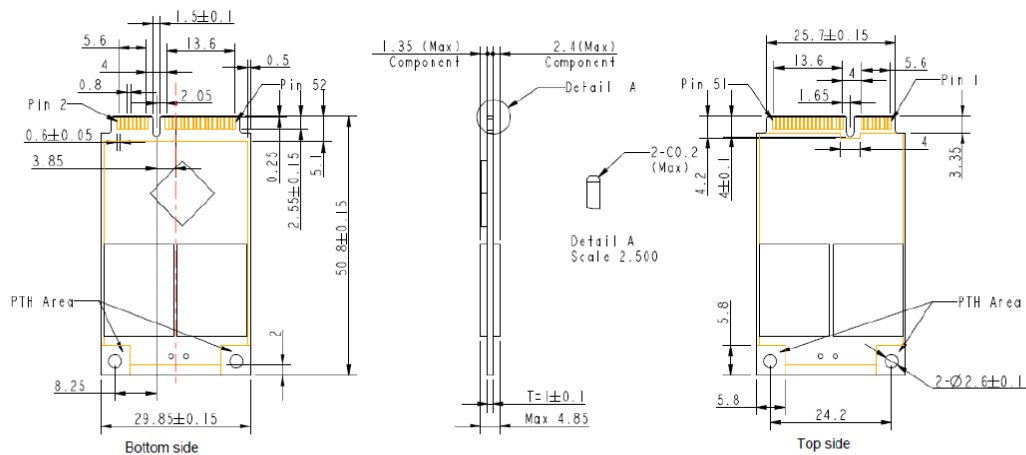
Figure 9-1 Physical Dimensions

For more information,
contact your Apacer representative

Global Presence