Transcend®

Embedded Solutions

2.5" SATA III SSD

SSD450K-I

3K P/E cycles **Wide Temperature**

Rated to endure 3K P/E cycles and featuring a SATA III 6Gb/s interface as well as 3D NAND flash, Transcend's SSD450K-I is the ideal high-speed, lightweight, and shockproof replacement for traditional rotating hard drives, all while being extra cost-effective and brought to you at an attractive price. The SSD450K-I is built with DRAM cache for reliable speeds, outstanding cache performance and customized functions to cater to the requirements of various embedded applications. The SSD450K-I can also perform in a wide range of operating temperatures, and is fully tested in-house to guarantee sustained functionality, enhanced endurance and optimal reliability in mission-critical applications.

Features

- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Promised operational reliability in a wide temperature range (from -40℃ to 85℃)
- Advanced Global Wear-Leveling and Block management for reliability
- Advanced Garbage Collection
- DDR3 DRAM Cache embedded
- Built-in LDPC ECC (Error Correction Code) functionality
- Enhanced S.M.A.R.T. function
- Supports DEVSLP mode (optional)
- RoHS 2.0 compliant
- Shock resistance
- Slim, elegant, and lightweight aluminum design
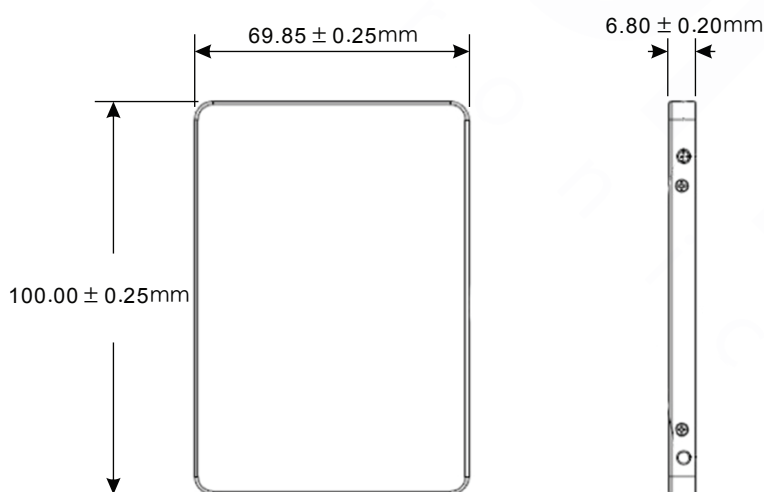- Non-volatile Flash Memory for outstanding data retention

Ordering Information

128GB	TS128GSSD450K-I
256GB	TS256GSSD450K-I
512GB	TS512GSSD450K-I

Specifications

Appearance	Dimensions (Max.)	100 mm x 69.85 mm x 6.8 mm (3.94" x 2.75" x 0.27")
	Weight (Max.)	63 g (2.22 oz)
	Form Factor	2.5"
Interface	Bus Interface	SATA III 6Gb/s
Storage	Flash Type	3D TLC NAND flash
	Capacity	128 GB/256 GB/512 GB
Operating Environment	Operating Voltage	5V±5%
	Operating Temperature	-40°C (-40°F) ~ 85°C (185°F)
	Storage Temperature	-40°C (-40°F) ~ 85°C (185°F)
	Humidity	5% ~ 95%
	Shock	1500 G, 0.5 ms, 3 axis
	Vibration (Non-Operating)	2.17 G (peak-to-peak), 10 Hz ~ 700 Hz (frequency)
Power	Power Consumption (Operation)	2.3 watt(s)
	Power Consumption (Sleep)	0.3 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark, max.)	Read: 550 MB/s ; write: 520 MB/s
	4K Random Read/Write (IOmeter, max.)	Read: 85,000 IOPS ; write: 85,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (Max.)	880 TB
	Drive Writes Per Day (DWPD)	1.61 (3 yrs)
Warranty	Certificate	CE/FCC/BSMI
	Warranty	Three-year Limited Warranty
Note	• Speed may vary due to host hardware, software, usage, and storage capacity.	
	• The workload used to rate DWPD may be different from your actual workload, which may vary due to host hardware, software, usage, and storage capacity.	

Mechanical Specification

69.85 ± 0.25mm

6.80 ± 0.20mm

100.00 ± 0.25mm