Embedded Solutions

2.5" SATA III SSD

SSD452K

3K P/E cycles

Transcend's SSD452K features the SATA III 6Gb/s interface and state-of-the-art BiCS4 technology, which allows 96 layers of 3D NAND flash chips to be vertically stacked. Compared to BiCS3 NAND at 64 layers, this density breakthrough greatly improves storage efficiency. The SSD452K is built with DRAM cache for fast access, and is fully tested in-house to guarantee reliability in mission-critical applications, boasting an endurance rating of 3K Program/Erase cycles.

Features

- DDR3 DRAM Cache embedded
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Advanced Global Wear-Leveling and Block management for reliability
- Advanced Garbage Collection
- Built-in LDPC ECC (Error Correction Code) functionality
- Enhanced S.M.A.R.T. function
- Compliant with RoHS 2.0 standards
- Supports Trim and NCQ command
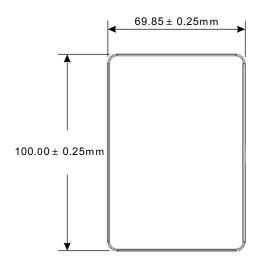- Power-saving DevSleep (Device Sleep) mode (optional)

Ordering Information

64GB	TS64GSSD452K
128GB	TS128GSSD452K
256GB	TS256GSSD452K
512GB	TS512GSSD452K
1TB	TS1TSSD452K
2TB	TS1TSSD452K

Specifications

Appearance	Dimensions (Max.)	100 mm x 69.85 mm x 6.8 mm (3.94" x 2.75" x 0.27")
	Weight (Max.)	54 g (1.90 oz)
	Form Factor	2.5"
Interface	Bus Interface	SATA III 6Gb/s
Storage	Flash Type	3D TLC NAND flash
	Capacity	64 GB/128 GB/256 GB/512 GB/1 TB/2 TB
Operating Environment	Operating Voltage	5V±5%
	Operating Temperature	0°C (32°F) ~ 70°C (158°F)
	Storage Temperature	-40°C (-40°F) ~ 85°C (185°F)
	Humidity	5% ~ 95%
	Shock	1500 G, 0.5 ms, 3 axis
	Vibration (Operating)	20 G (peak-to-peak), 5 Hz ~ 800 Hz (frequency)
Power	Power Consumption (Operation)	3.5 watt(s)
	Power Consumption (Sleep)	0.5 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark, max.)	Read: 560 MB/s ; write: 520 MB/s
	4K Random Read/Write (IOmeter, max.)	Read: 90,000 IOPS ; write: 85,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (Max.)	3,520 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

Product specifications are subject to change without notice. Pictures shown may differ from actual products. Total accessible capacity varies depending on operating environment.
Due to the complexity and variety of industrial applications, Transcend cannot guarantee 100% compatibility with all platforms and under all scenarios. For special applications and environments, it is strongly suggested that you contact Transcend beforehand for clarification.

Please feel free to contact us with any special requests you might have.
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