Embedded Solutions

2.5" SATA III SSD
SSD452K & SSD452K-I

3K P/E cycles

Transcend's SSD452K features the SATA III 6Gb/s interface and state-of-the-art 3D NAND technology, which allows 96 layers of 3D NAND flash chips to be vertically stacked. Compared to 3D 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.

Transcend also offers the SSD452K-I with wide temperature (-40°C ~ 85°C) capabilities to ensure sustained functionality, enhanced endurance and optimal reliability in mission-critical applications.

Features

- DRAM Cache embedded
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Wide-temperature model available: promised operational reliability in
- a wide temperature range (from -40°C to 85°C)
- 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
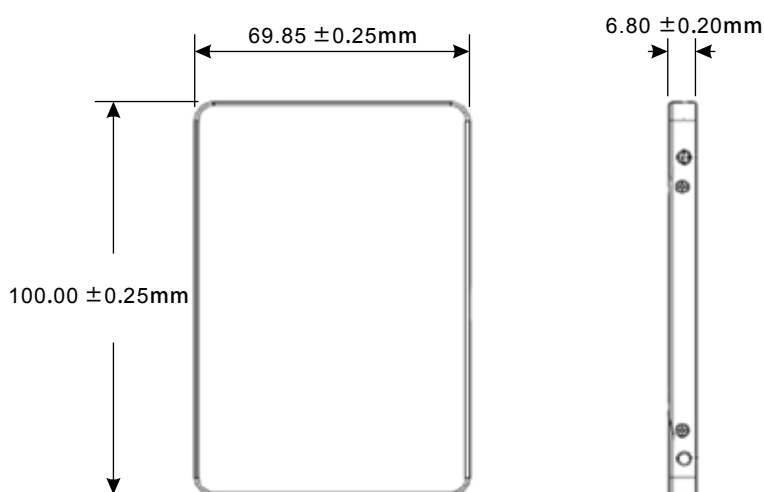- Power-saving DevSleep (Device Sleep) mode (optional)

Ordering Information

64GB	TS64GSSD452K
128GB	TS128GSSD452K
	TS128GSSD452K-I
256GB	TS256GSSD452K
	TS256GSSD452K-I
512GB	TS512GSSD452K
	TS512GSSD452K-I
1TB	TS1TSSD452K
	TS1TSSD452K-I
2TB	TS2TSSD452K
	TS2TSSD452K-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.)		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	Standard	0°C (32°F) ~ 70°C (158°F)
		Wide Temp.	-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 (Operating)		2.17 G (peak-to-peak), 10 Hz ~ 700 Hz (frequency)
Power	Power Consumption (Operation)		3.3 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: 95,000 IOPS ; write: 85,000 IOPS
	Mean Time Between Failures (MTBF)		2,000,000 hour(s)
	Terabytes Written (Max.)		3,520 TB
	Drive Writes Per Day (DWPD)		1.61 (3 yrs)
	Certificate		CE/FCC/BSMI
Warranty	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

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