



SSD470K & SSD470K-I

Transcend's SSD470K features the SATA III 6Gb/s interface and state-of-the-art 3D NAND technology, which allows 112 layers of 3D NAND flash chips to be vertically stacked. Compared to 3D NAND at 96 layers, this density breakthrough greatly improves storage efficiency, and its built-in DRAM cache allows faster access. The SSD470K is fully tested in-house to guarantee reliability in mission-critical applications, boasting an endurance rating of 3K Program/Erase cycles and an extended operating temperature ranging from -20°C~75°C.

Transcend also offers the SSD470K-I with wide temperature ( $-40^{\circ}$ C  $\sim 85^{\circ}$ C) capabilities to ensure sustained functionality, enhanced endurance and optimal reliability in mission-critical applications.

#### Hardware Features

- Compliant with RoHS 2.0 standards
- · DDR3 DRAM Cache embedded
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Power Shield (PS) to ensure data transfer integrity and minimize data corruption in the drive during an abnormal power outage
- Anti-sulfur technology implemented to prevent sulfurization in the environment

#### Firmware Features

- · Dynamic thermal throttling
- · NCQ command for better performance
- · TRIM command for better performance
- · Advanced Global Wear-Leveling and Block management for reliability
- Advanced Garbage Collection

## **Ordering Information**

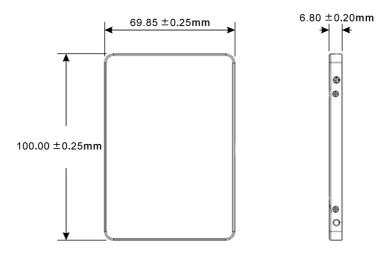
128GB	TS128GSSD470K TS128GSSD470K-I
256GB	TS256GSSD470K TS256GSSD470K-I
512GB	TS512GSSD470K TS512GSSD470K-I
1TB	TS1TSSD470K TS1TSSD470K-I
2TB	TS2TSSD470K TS2TSSD470K-I
4TB	TS4TSSD470K TS4TSSD470K-I



# Specifications

Appearance	Dimensions	100 mm x 69.85 mm x 6.8 mm (3.94" x 2.75" x 0.27")
	Weight	54 g (1.9 oz)
	Form Factor	2.5"
Interface	Bus Interface	SATA III 6Gb/s
Storage	Capacity	128 GB / 256 GB / 512 GB / 1 TB / 2 TB / 4 TB
	Flash Type	112-layer 3D NAND flash
Operating Environment	Operating Voltage	5V±5%
	Operating Temperature	Extended Temp20°C (-4°F) ~ 75°C (167°F) Wide Temp40°C (-40°F) ~ 85°C (185°F)
	Storage Temperature	-55°C (-67°F) ~ 85°C (185°F)
	Humidity	5% ~ 95%
	Shock	1500 G, 0.5 ms, 3 axis
	Vibration (Operating)	20 G (peak-to-peak), 7 Hz ~ 2000 Hz (frequency)
Power	Power Consumption (Operation)	5 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark)	Read: Up to 560 MB/s Write: Up to 520 MB/s
	4K Random Read/Write (IOmeter)	Read: Up to 90,000 IOPS Write: Up to 85,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	Up to 9680 TBW
	Drive Writes Per Day (DWPD)	2.16 (3 yrs)
Warranty	Certificate	CE / UKCA / FCC / BSMI
	Warranty	Three-year Limited Warranty

## **Mechanical Dimensions**



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.