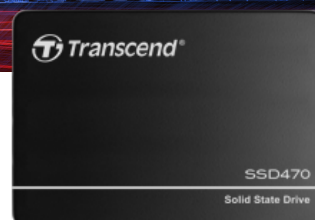## Transcend®

www.transcend-info.com

Embedded Solutions

2.5" SATA SSDs

SSD470P & SSD470P-I

Transcend's SSD470P 2.5" SSD is a Power Loss Protection (PLP) SSD. During unexpected power outages, the built-in tantalum capacitor provides power to the controller and DRAM cache, ensuring data integrity and storage reliability.

Transcend's SSD470P SSD features a SATA III 6Gb/s interface and 112-layer 3D NAND flash, delivering breakthrough density that greatly improves storage efficiency. Its built-in DRAM cache enables fast random read and write speeds, and improves drive endurance. In addition, the anti-sulfur resistor guarantees its reliability in harsh conditions. Transcend's SSD470P is also 100% chamber tested in-house for extended operating temperatures of -20℃~75℃. Wide-temp capability (-40℃~85℃) is also available upon request, allowing for stable operation in extreme environments.

Hardware Features

- DDR3 DRAM Cache embedded
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Anti-sulfur technology implemented to prevent sulfurization in the environment
- Power Loss Protection (PLP) to prevent data loss in the event of sudden power outage
- Extended Temp. (-20°C ~ 75°C) and Wide Temp. (-40°C ~ 85°C) options available

Firmware Features

- Built-in LDPC ECC (Error Correction Code) functionality
- Advanced Global Wear-Leveling and Block management for reliability
- Advanced Garbage Collection
- Supports S.M.A.R.T. function to conduct health monitoring, analysis, and reporting for storage devices
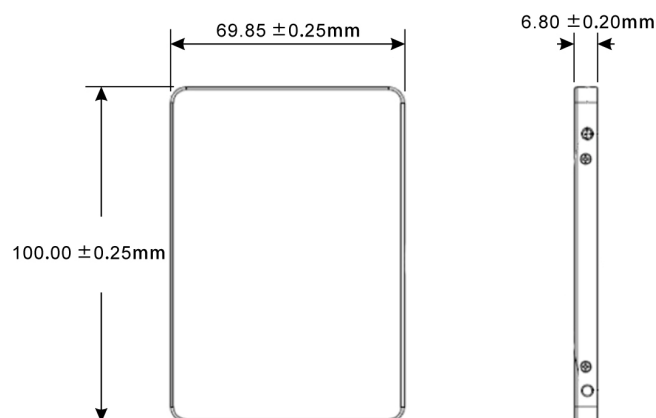- Dynamic thermal throttling

Ordering Information

Capacity	Part Number
128GB	TS128GSSD470P TS128GSSD470P-I
256GB	TS256GSSD470P TS256GSSD470P-I
512GB	TS512GSSD470P TS512GSSD470P-I
1TB	TS1TSSD470P TS1TSSD470P-I
2TB	TS2TSSD470P TS2TSSD470P-I
4TB	TS4TSSD470P TS4TSSD470P-I

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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 Temp. -20°C (-4°F) ~ 75°C (167°F) Wide Temp. -40°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)	4.6 watt(s)
	Power Consumption (Sleep)	0.6 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 2420 TBW
	Drive Writes Per Day (DWPD)	2.16 (3 yrs)
Warranty	Certificate	CE / FCC / BSMI / UKCA
	Warranty	Three-year Limited Warranty

Mechanical Dimensions

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.

Transcend®

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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