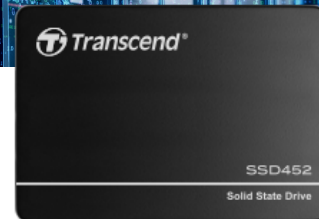Transcend®

www.transcend-info.com

Embedded Solutions

2.5" SATA SSDs

SSD452P & SSD452P-I

Transcend's SSD452P 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, and its built-in DRAM cache allows faster access. The SSD452P is fully tested in-house, boasting an endurance rating of 3K Program/Erase cycles and an extended operating temperature ranging from -20°C~75°C. The built-in Power Loss Protection (PLP) further ensures data integrity in mission-critical applications.

Transcend also offers the SSD452P-I with wide temperature (-40℃ ~ 85℃) capabilities to ensure sustained functionality, enhanced endurance, and optimal reliability in mission-critical applications.

Hardware Features

- DDR3 DRAM Cache embedded
- Supports Transcend Scope Pro software
- 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

- Dynamic thermal throttling
- Advanced Garbage Collection
- Advanced Global Wear-Leveling and Block management for reliability
- Power-saving DevSleep (Device Sleep) mode
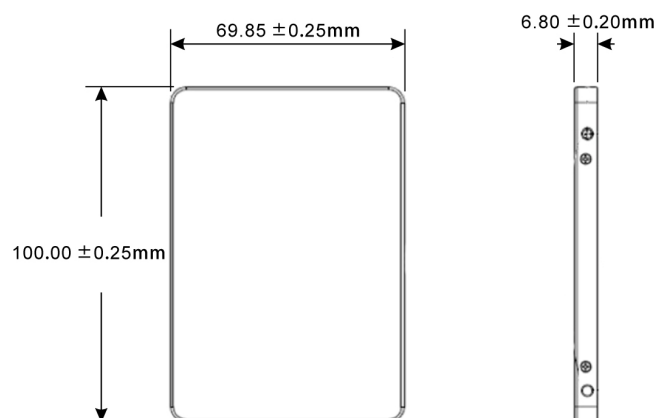- Built-in LDPC ECC (Error Correction Code) functionality

Ordering Information

64GB	TS64GSSD452P
	TS64GSSD452P-I
128GB	TS128GSSD452P
	TS128GSSD452P-I
256GB	TS256GSSD452P
	TS256GSSD452P-I
512GB	TS512GSSD452P
	TS512GSSD452P-I
1TB	TS1TSSD452P
	TS1TSSD452P-I

Transcend®

Specifications

Appearance	Dimensions	100 mm x 69.85 mm x 6.8 mm (3.94" x 2.75" x 0.27")
	Weight	54 g (1.90 oz)
	Form Factor	2.5"
Interface	Bus Interface	SATA III 6Gb/s
Storage	Capacity	64 GB / 128 GB / 256 GB / 512 GB / 1 TB
	Flash Type	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)	3.3 watt(s)
	Power Consumption (Sleep)	0.5 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 1,760 TBW
	Drive Writes Per Day (DWPD)	1.61 (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

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.

US

sales@assured-systems.com

Sales: +1 347 719 4508
Support: +1 347 719 4508

1309 Coffeen Ave
Ste 1200
Sheridan
WY 82801
USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050
Support: +44 (0)1785 879 050

Unit A5 Douglas Park
Stone Business Park
Stone
ST15 0YJ
United Kingdom

VAT Number: 120 9546 28
Business Registration Number: 07699660