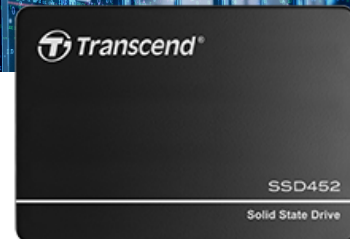


## Embedded Solutions



2.5" SATA SSDs

# SSD452A

Transcend's SSD45A features the SATA III 6Gb/s interface and the 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 SSD452A is compliant with the TCG Opal 2.0 standards. Data is secured by encryption and hierarchical permission. It 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.

## Hardware Features

- Compliant with RoHS 2.0 standards
- DDR3 DRAM Cache embedded
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Promised operational reliability in an extended temperature range (from -20°C to 75°C)
- Supports Transcend Scope Pro software

## Firmware Features

- Dynamic thermal throttling
- Advanced Global Wear-Leveling and Block management for reliability
- Supports S.M.A.R.T. function to conduct health monitoring, analysis, and reporting for storage devices
- TRIM command for better performance
- NCQ command for better performance

\*Supports Microsoft® eDrive standard

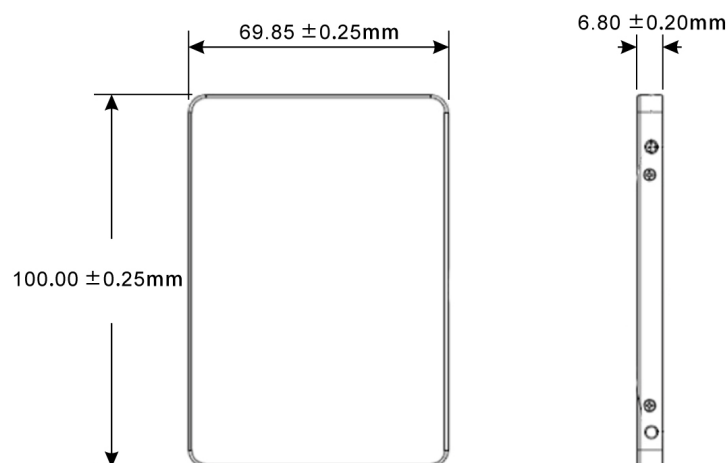
## Ordering Information

64GB	TS64GSSD452A
128GB	TS128GSSD452A
256GB	TS256GSSD452A
512GB	TS512GSSD452A
1TB	TS1TSSD452A
2TB	TS2TSSD452A

## Specifications

<b>Appearance</b>	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"
<b>Interface</b>	Bus Interface	SATA III 6Gb/s
<b>Storage</b>	Flash Type	3D NAND flash
	Capacity	64 GB / 128 GB / 256 GB / 512 GB / 1 TB / 2 TB
<b>Operating Environment</b>	Operating Voltage	5V±5%
	Operating Temperature	Extended Temp. -20°C (-4°F) ~ 75°C (167°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 ~ 2,000 Hz (frequency)
<b>Power</b>	Power Consumption (Operation)	3.5 watt(s)
	Power Consumption (Sleep)	0.4 watt(s)
<b>Performance</b>	Sequential Read/Write (CrystalDiskMark)	Read: up to 560 MB/s Write: up to 410 MB/s
	4K Random Read/Write (IOmeter)	Read: up to 65,000 IOPS Write: up to 75,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	up to 440 TBW
	Drive Writes Per Day (DWPD)	1.61 (3 yrs)
<b>Warranty</b>	Certificate	CE / FCC / BSMI / UKCA
	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.