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Embedded Solutions



2.5" SATA SSDS SSD460K & SSD460K-I

Transcend's industrial 2.5" DRAM-less SSD SSD460K 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. The SSD460K 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 temperatures ranging from -20°C~75°C.

Transcend also offers the SSD460K-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
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Supports Transcend Scope Pro software
- 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

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

Ordering Information

64GB	TS64GSSD460K TS64GSSD460K-I
128GB	TS128GSSD460K TS128GSSD460K-I
256GB	TS256GSSD460K TS256GSSD460K-I
512GB	TS512GSSD460K TS512GSSD460K-I
1TB	TS1TSSD460K TS1TSSD460K-I
2TB	TS2TSSD460K TS2TSSD460K-I



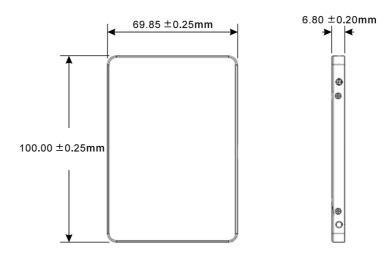




Specifications

Form Factor 2.5" Interface Bus Interface SATA III 6Gb/s Storage Capacity 64 GB / 128 GB / 256 GB / 512 GB / 1 TB / 2 TB Flash Type 112-layer 3D NAND flash Operating Voltage 5V±5% Operating Temperature SVtefN ~ 75°C (167°F) Wide Temp. -20°C (-40°F) ~ 75°C (167°F) 2.5% Further -55°C (-67°F) ~ 85°C (185°F) Storage Temperature -55°C (-67°F) ~ 85°C (185°F) Midity 5% ~ 95% Shock 1500 G, 0.5 ms, 3 axis Vibration (Operating) 20 G (peak-to-peak), 7 Hz ~ 2,000 Hz (frequency) Power Consumption (Sleep) 0.3 watt(s) Power Consumption (Sleep) 0.3 watt(s) Read: up to 550 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s Write: up to 500 MB/s			
Form Factor2.5"InterfaceBus InterfaceSATA III 6Gb/sStorageCapacity64 GB / 128 GB / 256 GB / 512 GB / 1 TB / 2 TBForm FactorFlash Type112-layer 3D NAND flashPoperating VoltageSV±5%Operating TemperatureSV±6%PowerStorage TemperatureS5°C (4°F) ~ 75°C (185°F)Humidity5% ~ 95%PowerShock1500 G, 0.5 ms, 3 axisPowerPower Consumption (Operation)1.9 watt(s)PowerRead: up to 560 MB/s Write: up to 560 MB/sAttended Temp. -40°C (40°F) ~ 85°C (185°F)PowerPower Consumption (Sleep)0.3 watt(s)PowerSequential Read/Write (CrystalDiskMark)Read: up to 560 MB/s Write: up to 500 MB/sPoto Store Failures (MTBF)3,000,000 hour(s)Mean Time Between Failures (MTBF)3,000,000 hour(s)Drive Writes Per Day (DWPD)1.95 (3 yrs)	Appearance	Dimensions	100 mm x 69.85 mm x 6.8 mm (3.94" x 2.75" x 0.27")
Interface Bus Interface SATA III 6Gb/s Storage Capacity 64 GB / 128 GB / 256 GB / 512 GB / 1 TB / 2 TB Flash Type 112-layer 3D NAND flash Operating Voltage 5V±5% Operating Temperature SV±5% Storage Temperature -20°C (-40°F) ~ 75°C (167°F) Wide Temp. -20°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 ~ 2,000 Hz (frequency) Power Power Consumption (Sleep) 0.3 watt(s) Particial Read/Write (Crystal/DiskMark) Read: up to 550,000 IOPS Write: up to 80,000 IOPS Write: up to 80,000 IOPS Write: UP to 80,000 IOPS Write: up to 80,000 IOPS Mean Time Between Failures (MTBF) 3,000,000 hour(s) Mean Time Between Failures (MTBF) 3,000,000 hour(s) Terabytes Written (TBW) up to 4376 TBW Drive Writes Per Day (DWPD) 1.95 (3 yrs)		Weight	54 g (1.9 oz)
Storage Capacity 64 GB / 128 GB / 256 GB / 512 GB / 1 TB / 2 TB Flash Type 112-layer 3D NAND flash 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) Munidity 5% ~ 95% Shock 1500 G, 0.5 ms, 3 axis Vibration (Operating) 20 G (peak-to-peak), 7 Hz ~ 2,000 Hz (frequency) Power Nowr Consumption (Operation) Power Consumption (Sleep) 0.3 watt(s) Power Consumption (Sleep) 0.3 watt(s) Read: up to 5600 MB/s Write: up to 5000 MB/s Write: up to 5000 MB/s Write: up to 5000 MB/s Mean Time Between Failures (MTBF) 3,000,000 hour(s) Mean Time Between Failures (MTBF) 3,000,000 hour(s) Terabytes Written (TBW) up to 4376 TBW Drive Writes Per Day (DWPD) 1.95 (3 yrs)		Form Factor	2.5"
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Power Power Consumption (Sleep) 0.3 watt(s) Performance Sequential Read/Write (CrystalDiskMark) Read: up to 560 MB/s Write: up to 500 MB/s 4K Random Read/Write (IOmeter) Read: up to 55,000 IOPS Write: up to 80,000 IOPS Mean Time Between Failures (MTBF) 3,000,000 hour(s) Terabytes Written (TBW) up to 4376 TBW Drive Writes Per Day (DWPD) 1.95 (3 yrs)		Vibration (Operating)	20 G (peak-to-peak), 7 Hz ~ 2,000 Hz (frequency)
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Drive Writes Per Day (DWPD) 1.95 (3 yrs)		Mean Time Between Failures (MTBF)	3,000,000 hour(s)
		Terabytes Written (TBW)	up to 4376 TBW
		Drive Writes Per Day (DWPD)	1.95 (3 yrs)
	Warranty	Certificate	CE / FCC / BSMI / UKCA
Warranty Warranty Three-year Limited Warranty		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.



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