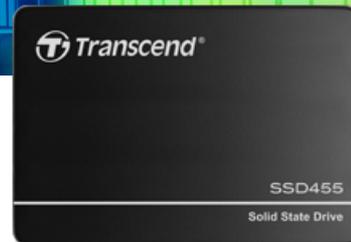


## Embedded Solutions



2.5" SATA SSDs

# SSD455K-I

Transcend's SSD455K-I 2.5" SSD features the SATA III 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. The SSD455K-I is built with DRAM cache for fast access, and is fully tested in-house to guarantee reliability in mission-critical applications, boasting an endurance rating of 3K Program/Erase cycles. The SSD455K-I is compliant with the TCG Opal 2.0 standards. Data is secured by encryption and hierarchical permission. It can operate in a wide temperature range(-40°C ~ 85°C). This ensures a 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
- Promised operational reliability in a wide temperature range (from -40°C to 85°C)
- DDR3 DRAM Cache embedded
- Key components fortified by default with Corner Bond technology

## Firmware Features

- Dynamic thermal throttling
- Advanced Garbage Collection
- Advanced Global Wear-Leveling and Block management for reliability
- Power-saving DevSleep (Device Sleep) mode
- Compliant with TCG Opal specifications and IEEE 1667 standards

## Ordering Information

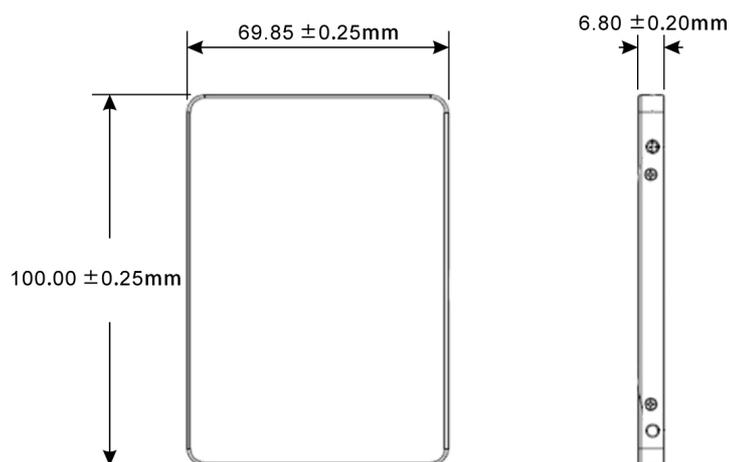
|       |                 |
|-------|-----------------|
| 256GB | TS256GSSD455K-I |
| 512GB | TS512GSSD455K-I |
| 1TB   | TS1TSSD455K-I   |

\*Supports Microsoft® eDrive standard

## 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                                | 256 GB / 512 GB / 1 TB                              |
| <b>Operating Environment</b> | Operating Voltage                       | 5V±5%   |
|                              | Operating Temperature                   | Wide Temp.<br>-40°C (-40°F) ~ 85°C (185°F)          |
|                              | Storage Temperature                     | -40°C (-40°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)     |
| <b>Power</b>                 | Power Consumption (Operation)           | 3.3 watt(s)   |
|                              | Power Consumption (Sleep)               | 0.5 watt(s)   |
| <b>Performance</b>           | Sequential Read/Write (CrystalDiskMark) | Read: up to 560 MB/s<br>Write: up to 520 MB/s       |
|                              | 4K Random Read/Write (IOMeter)          | Read: up to 90,000 IOPS<br>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)  |
| <b>Warranty</b>              | Certificate                             | CE / 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.