



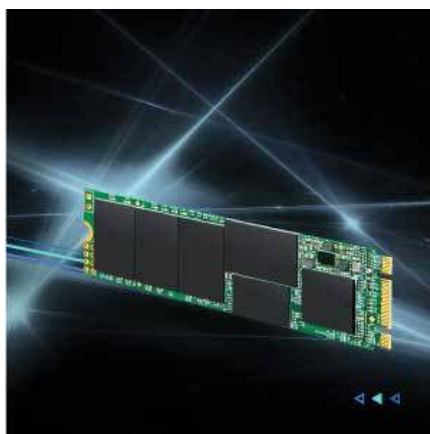
## SATA III M.2 Solid State Drive **M.2 SSD 832S** (Single-sided)

Transcend's M.2 SSD 832S adopts a single-sided M.2 2280 form factor, making it slimmer and highly compatible with space-limited applications and small form factor devices, such as thin, light notebooks and high-performance PCs. Featuring the SATA III 6Gb/s interface, DDR3 DRAM cache, enhanced firmware algorithms, and built with high-quality NAND flash, the ultra-compact M.2 SSD 832S delivers high performance and peerless reliability.



### Single-sided to fit perfectly in small form factor devices

Compliant with M.2 form factor Type 2280, Transcend's 3D NAND M.2 SSD 832S is just 80mm in length and comes in a single-sided layout - meaning that only one side of the SSD has components attached to it - making the 832S the perfect solution for small form factor laptops and ultra-light PCs.



### Superior transfer speeds

Featuring the M.2 standard (80mm), the next generation SATA III 6Gb/s interface and a powerful controller, Transcend's M.2 SSD 832S reaches incredible read and write speeds of up to 560MB/s and 500MB/s. When used as a cache, the M.2 SSD 832S provides 1.5 times faster boot time than conventional hard drives.



### Store more in less space

The M.2 form factor enables expansion and integration of functions onto a single form factor module solution. M.2 SSDs include a smaller form factor but with larger capacities than that of mSATA and half-slim SSDs.



## SATA III M.2 Solid State Drive

### M.2 SSD 832S

#### Features

- Space-saving M.2 Type 2280 form factor
- Up to 560 MB/s read; 500 MB/s write
- 3D NAND flash memory
- RAID engine and LDPC coding for data integrity; DDR3 DRAM cache for short access times
- Supports S.M.A.R.T., TRIM, and NCQ commands



#### SSD Scope Software

Transcend SSD Scope is advanced, user-friendly software that makes it easy to ensure your Transcend SSD remains healthy, and continues to run fast and error-free by determining the condition and optimizing the performance of your drive.

#### Specifications

##### Appearance

|            |                                                     |
|------------|-----------------------------------------------------|
| Dimensions | 80.0 mm x 22.0 mm x 2.23 mm (3.15" x 0.87" x 0.09") |
| Weight     | 9 g (0.32 oz)                                       |

##### Interface

|               |                |
|---------------|----------------|
| Bus Interface | SATA III 6Gb/s |
|---------------|----------------|

##### Storage

|            |                    |
|------------|--------------------|
| Flash Type | 3D NAND flash      |
| Capacity   | 256 GB/512 GB/1 TB |

##### Operating Environment

|                       |                           |
|-----------------------|---------------------------|
| Operating Temperature | 0°C (32°F) ~ 70°C (158°F) |
| Operating Voltage     | 3.3V±5%                   |

##### Performance

|                                                  |                    |
|--------------------------------------------------|--------------------|
| Sequential Read/Write<br>(CrystalDiskMark, max.) | Read: 560 MB/s     |
|                                                  | Write: 500 MB/s    |
| 4K Random Read/Write<br>(IOMeter, max.)          | Read: 85,000 IOPS  |
|                                                  | Write: 85,000 IOPS |
| Mean Time Between Failures<br>(MTBF)             | 2,000,000 hour(s)  |
| Terabytes Written (Max.)                         | 560 TB             |
| Drive Writes Per Day<br>(DWPD)                   | 0.3 (5 yrs)        |

##### Note

Speed may vary due to host hardware, software, usage, and storage capacity.

##### Warranty

|             |                            |
|-------------|----------------------------|
| Certificate | CE/FCC/BSMI                |
| Warranty    | Five-year Limited Warranty |

##### Ordering Information

|       |               |
|-------|---------------|
| 256GB | TS256GMTS832S |
| 512GB | TS512GMTS832S |
| 1TB   | TS1TMTS832S   |

## SATA III M.2 SSDs Comparison

|                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|--------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                  |  |  |  |  |  |
|                                                  | SATA III 6Gb/s<br>M.2 SSD 420S                                                    | SATA III 6Gb/s<br>M.2 SSD 430S                                                    | SATA III 6Gb/s<br>M.2 SSD 820S                                                    | SATA III 6Gb/s<br>M.2 SSD 830S                                                      | SATA III 6Gb/s<br>M.2 SSD 832S                                                      |
| Appearance                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| Dimensions                                       | 42.0 mm x 22.0 mm<br>x 3.88 mm<br>(1.65" x 0.87" x 0.15")                         | 42.0 mm x 22.0 mm<br>x 3.58 mm<br>(1.65" x 0.87" x 0.14")                         | 80.0 mm x 22.0 mm<br>x 3.58 mm<br>(3.15" x 0.87" x 0.14")                         | 80.0 mm x 22.0 mm<br>x 3.58 mm<br>(3.15" x 0.87" x 0.14")                           | 80.0 mm x 22.0 mm<br>x 2.23 mm<br>(3.15" x 0.87" x 0.09")                           |
| Weight                                           | 5 g (0.18 oz)                                                                     | 5 g (0.18 oz)                                                                     | 9 g (0.32 oz)                                                                     | 9 g (0.32 oz)                                                                       | 9 g (0.32 oz)                                                                       |
| Storage                                          |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| Flash Type                                       | 3D NAND flash                                                                     |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| Capacity                                         | 120GB ~ 240GB                                                                     | 128GB ~ 512GB                                                                     | 120GB ~ 960GB                                                                     | 128GB ~ 2TB                                                                         | 256GB ~ 1TB                                                                         |
| Operating Environment                            |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| Operating Temperature                            | 0°C (32°F) ~ 70°C (158°F)                                                         |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| Performance                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| Sequential Read/Write<br>(CrystalDiskMark, max.) | Read: 500 MB/s<br>Write: 500 MB/s                                                 | Read: 560 MB/s<br>Write: 500 MB/s                                                 | Read: 550 MB/s<br>Write: 500 MB/s                                                 | Read: 560 MB/s<br>Write: 520 MB/s                                                   | Read: 560 MB/s<br>Write: 500 MB/s                                                   |
| 4K Random Read/Write<br>(IOMeter, max.)          | Read: 40,000 IOPS<br>Write: 75,000 IOPS                                           | Read: 80,000 IOPS<br>Write: 85,000 IOPS                                           | Read: 70,000 IOPS<br>Write: 75,000 IOPS                                           | Read: 90,000 IOPS<br>Write: 85,000 IOPS                                             | Read: 85,000 IOPS<br>Write: 85,000 IOPS                                             |
| Mean Time Between Failures<br>(MTBF)             | 1,000,000 hour(s)                                                                 | 1,000,000 hour(s)                                                                 | 1,000,000 hour(s)                                                                 | 2,000,000 hour(s)                                                                   | 2,000,000 hour(s)                                                                   |
| Terabytes Written (Max.)                         | 80 TB                                                                             | 280 TB                                                                            | 320 TB                                                                            | 1,120 TB                                                                            | 560 TB                                                                              |
| Drive Writes Per Day (DWPD)                      | 0.3 (3 yrs)                                                                       | 0.3 (5 yrs)                                                                       | 0.3 (3 yrs)                                                                       | 0.3 (5 yrs)                                                                         | 0.3 (5 yrs)                                                                         |
| Warranty                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| Warranty                                         | Three-year Limited<br>Warranty                                                    | Five-year Limited<br>Warranty                                                     | Three-year Limited<br>Warranty                                                    | Five-year Limited<br>Warranty                                                       | Five-year Limited<br>Warranty                                                       |
| Technology                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| TRIM & NCQ Command                               | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                   | ✓                                                                                   |
| S.M.A.R.T.                                       | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                   | ✓                                                                                   |
| DDR3 DRAM Cache                                  | -                                                                                 | ✓                                                                                 | -                                                                                 | ✓                                                                                   | ✓                                                                                   |
| Advanced Garbage Collection                      | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                   | ✓                                                                                   |
| RAID Engine                                      | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                   | ✓                                                                                   |
| LDPC Coding                                      | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                   | ✓                                                                                   |

\*Speed may vary due to host hardware, software, usage, and storage capacity.