SATA III M.2 Solid State Drive

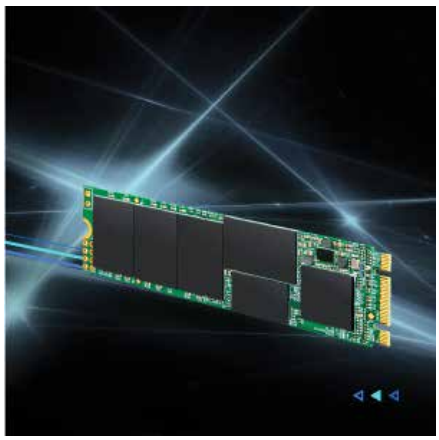
M.2 SSD 832S

(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.

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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 (CrystalDiskMark, max.)	Read: 560 MB/s Write: 500 MB/s
4K Random Read/Write (IOmeter, max.)	Read: 85,000 IOPS Write: 85,000 IOPS
Mean Time Between Failures (MTBF)	2,000,000 hour(s)
Terabytes Written (Max.)	560 TB
Drive Writes Per Day (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

Product specifications are subject to change without notice. Pictures shown may differ from actual products. When used as a storage capacity unit, one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment.

SATA III M.2 SSDs Comparison

SATA III 6Gb/s
M.2 SSD 420S

SATA III 6Gb/s
M.2 SSD 430S

SATA III 6Gb/s
M.2 SSD 820S

SATA III 6Gb/s
M.2 SSD 830S

SATA III 6Gb/s
M.2 SSD 832S

Appearance					
Dimensions	42.0 mm x 22.0 mm x 3.88 mm (1.65" x 0.87" x 0.15")	42.0 mm x 22.0 mm x 3.58 mm (1.65" x 0.87" x 0.14")	80.0 mm x 22.0 mm x 3.58 mm (3.15" x 0.87" x 0.14")	80.0 mm x 22.0 mm x 3.58 mm (3.15" x 0.87" x 0.14")	80.0 mm x 22.0 mm x 2.23 mm (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 ~ 480GB	128GB ~ 512GB	120GB ~ 960GB	128GB ~ 2TB	256GB ~ 1TB
Operating Environment					
Operating Temperature	0°C (32°F) ~ 70°C (158°F)				
Performance					
Sequential Read/Write (CrystalDiskMark)	Read: 530 MB/s Write: 480 MB/s	Read: 560 MB/s Write: 500 MB/s	Read: 550 MB/s Write: 500 MB/s	Read: 560 MB/s Write: 520 MB/s	Read: 560 MB/s Write: 500 MB/s
4K Random Read/Write (IOmeter)	Read: 50,000 IOPS Write: 75,000 IOPS	Read: 80,000 IOPS Write: 85,000 IOPS	Read: 70,000 IOPS Write: 75,000 IOPS	Read: 90,000 IOPS Write: 85,000 IOPS	Read: 85,000 IOPS Write: 85,000 IOPS
Mean Time Between Failures (MTBF)	2,000,000 hour(s)	2,000,000 hour(s)	2,000,000 hour(s)	2,000,000 hour(s)	2,000,000 hour(s)
Terabytes Written (TBW)	160 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 Warranty	Five-year Limited Warranty	Three-year Limited Warranty	Five-year Limited Warranty	Five-year Limited 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.