



SATA III M.2 Solid State Drive  
**M.2 SSD 420S**

Transcend's ultra-compact SATA III 6Gb/s M.2 SSD 420S addresses the high-performance needs and strict size limitations of small form factor devices, best suited for Ultrabooks and thin, light notebooks. Boasting high-quality flash chips and enhanced firmware algorithms, Transcend's M.2 SSD 420S delivers optimal reliability.



**Perfect for your Ultrabook**

Measured at just 42mm in length, the M.2 SSD 420S makes for an easy upgrade to your computer, taking up little space while giving it a much needed energy boost.



**Superior transfer speeds**

Transcend's M.2 SSD 420S reaches incredible read and write speeds of up to 520MB/s and 480MB/s. When used as a cache, the M.2 SSD 420S 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 420S

#### Features

- Space-saving M.2 Type 2242 form factor
- Up to 520 MB/s read; 480 MB/s write
- 3D NAND flash memory
- RAID engine and LDPC coding for data integrity; DDR3 DRAM cache for short access times
- Supports DevSleep ultra low power state, 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 (Max.)	42.0 mm x 22.0 mm x 3.88 mm (1.65" x 0.87" x 0.15")
Weight (Max.)	5 g (0.18 oz)

##### Interface

Bus Interface	SATA III 6Gb/s
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##### Storage

Flash Type	3D NAND flash
Capacity	120 GB/240 GB

##### Operating Environment

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

##### Performance

Sequential Read/Write (ATTO, max.)	Read: 520 MB/s
	Write: 480 MB/s
Sequential Read/Write (CrystalDiskMark, max.)	Read: 550 MB/s
	Write: 500 MB/s
4K Random Read/Write (IOMeter, max.)	Read: 40,000 IOPS
	Write: 75,000 IOPS
Mean Time Between Failures (MTBF)	1,000,000 hour(s)
Terabytes Written (Max.)	80 TB
Drive Writes Per Day (DWPD)	0.3 (3 yrs)

##### Note

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

##### Warranty

Certificate	CE/FCC/BSMI
Warranty	Three-year Limited Warranty

#### Ordering Information

120GB	TS120GMTS420S
240GB	TS240GMTS420S

## 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

### Appearance

Dimensions (Max.)	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")
Weight (Max.)	5 g (0.18 oz)	5 g (0.18 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 ~ 1TB

### Operating Environment

Operating Temperature	0°C (32°F) ~ 70°C (158°F)			
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### Performance

Sequential Read/Write (ATTO, max.)	Read: 520 MB/s Write: 480 MB/s	Read: 560 MB/s Write: 500 MB/s	-	Read: 560 MB/s Write: 520 MB/s
Sequential Read/Write (CrystalDiskMark, max.)	Read: 500 MB/s Write: 500 MB/s	Read: 560 MB/s Write: 500 MB/s	Read: 550 MB/s Write: 500 MB/s	Read: 560 MB/s Write: 500 MB/s
4K Random Read/Write (IOmeter, max.)	Read: 40,000 IOPS Write: 75,000 IOPS	Read: 80,000 IOPS Write: 85,000 IOPS	Read: 70,000 IOPS Write: 75,000 IOPS	Read: 85,000 IOPS Write: 85,000 IOPS
Mean Time Between Failures (MTBF)	1,000,000 hour(s)			
Terabytes Written (Max.)	80 TB	280 TB	320 TB	560 TB
Drive Writes Per Day (DWPD)	0.3 (3 yrs)	0.3 (5 yrs)	0.3 (3 yrs)	0.3 (5 yrs)

### Warranty

Warranty	Three-year Limited Warranty	Five-year Limited Warranty	Three-year Limited Warranty	Five-year Limited Warranty
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### Technology

TRIM & NCQ Command	✓	✓	✓	✓
S.M.A.R.T.	✓	✓	✓	✓
DDR3 DRAM Cache	-	✓	-	✓
Advanced Garbage Collection	✓	✓	✓	✓
DevSleep Mode	✓	✓	✓	✓
RAID Engine	✓	✓	✓	✓
LDPC Coding	✓	✓	✓	✓

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