

# 24nm MLC NAND 2.5-Inch SATA Solid State Drives

**TOSHIBA**  
Leading Innovation >>>

*Uncompromised combination of  
capacity, performance and power  
efficiency.*



THNSxS060GBSP  
THNSxS064GBSP  
THNSxS120GBSP  
THNSxS128GBSP  
THNSxS240GBSP  
THNSxS256GBSP  
THNSxS480GBSP  
THNSxS512GCBP

The Toshiba THNSNS solid state drives employ 24 nanometer flash memory process technology to deliver high NAND flash density. With a SATA 6Gb/s interface the Toshiba THNSNS solid state drives deliver significant performance improvements over prior Toshiba SDDs making them ideal for high-end notebook PCs and all-in-one desktop computers.

The THNSNS series is available in both a 7mm and 9.5mm 2.5-inch form factor as well as mSATA enabling manufacturers to take full advantage of SSD performance without having to design a different-sized drive bay. The THNSxS drives have a quick erase function which is useful in preventing data leakage prior to disposal or reuse.

The THNSNS series are halogen-free, demonstrating Toshiba Corporation's global commitment to Environmentally Conscious Products (ECPs) that have minimal environmental impact.\*\* As part of this voluntary initiative, Toshiba has reduced or eliminated additional hazardous substances\*\*\* in the drives.

- Up to 512GB\* of Storage Capacity
- 24nm MLC NAND Flash
- Fast Access and Transfer Rates
- Slim and Light

Solid  
State Drive

# 24nm MLC NAND

## 2.5-Inch SATA Solid State Drives

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### Series Overview

	THNSxS060GBSP / THNSxS064GBSP	THNSxS120GBSP / THNSxS128GBSP	THNSxS240GBSP / THNSxS256GBSP	THNSxS480GBSP / THNSxS512GCBP
	2.5-inch Case/mSATA	2.5-inch Case/mSATA	2.5-inch Case/mSATA	2.5-inch Case
NAND Technology	24nm MLC NAND			
Maximum Capacity-Commercial	60GB	120GB	240GB	480GB
Maximum Capacity-PC	64GB	124GB	256GB	512GB
Drive Interface	SATA Revision 3.1			
Transfer Rate to Host	Up to 6 Gb/s			

### Performance

Data Transfer Rate	440 MiB/s @ 128 KiB	490 MiB/s @ 128 KiB	500 MiB/s @ 128 KiB	520 MiB/s @ 128 KiB
Max. Sequential Read				
Data Transfer Rate	180 MiB/s @ 128 KiB	340 MiB/s @ 128 KiB	390 MiB/s @ 128 KiB	350 MiB/s @ 128 KiB
Sequential Write (Random data)				
Data Transfer Rate	14K @ 4KiB	28K @ 4KiB	49K @ 4KiB	41K @ 4KiB
Random IOPS Read (sustain)				
Data Transfer Rate	14K @ 4KiB	54K @ 4KiB	49K @ 4KiB	41K @ 4KiB
Write (max.)				
MTTF	1.0Mhour			
Power Consumption (active)	3.7W	3.9W	5.8W	5.8W

### Physical Size

Dimensions (W) x (D) x (H)	2.5" case 69.85 mm x 100.0 mm x 7.0 mm or 9.5 mm mSATA	2.5" case 69.85 mm x 100.0 mm x 7.0 mm or 9.5 mm mSATA	2.5" case 69.85 mm x 100.0 mm x 7.0 mm or 9.5 mm mSATA	69.85 mm x 100.0 x 7.0 mm or 9.5 mm
	29.85 mm x 50.8 mm x 4.85 mm	29.85 mm x 50.8 mm x 4.85 mm	29.85 mm x 50.8 mm x 4.85 mm	

### Limited Warranty

Limited Warranty

1 year (from date of purchase)

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<sup>1</sup>One Gigabyte (1GB) means  $10^9 = 1,000,000,000$  bytes, one Terabyte (TB) means  $10^{12} = 1,000,000,000,000$  bytes, and one Petabyte (1PB) means  $10^{15} = 1,000,000,000,000,000$  bytes using powers of 10. A computer operating system, however, reports storage capacity using powers of 2 for the definition of  $1\text{GB} = 2^{30} = 1,073,741,824$  bytes,  $1\text{TB} = 2^{40} = 1,099,511,627,776$  bytes, and  $1\text{PB} = 2^{50} = 1,125,899,906,842,624$  bytes, and therefore shows less storage capacity. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software and operating system, such as Microsoft Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

\*\*Please refer this site for ECP information. <http://www.toshiba.co.jp/env/en/products/index.htm>

\*\*\*Concentrations of chlorine and bromine are below 900 ppm for each substance, surpassing the IEC61249-2-21:2003 criteria set for printed circuit boards by the International Electrotechnical Commission (IEC), in applying the criteria to all components in the HDD. IEC is the leading global organization that defines internationally-recognized standards for electrical, electronic and associated technologies.

Subject to Change: While Toshiba has made every effort at the time of publication to ensure the accuracy of the information provided herein, product specifications, configurations, prices, system/component/options availability are all subject to change without notice. Product image may represent design model.