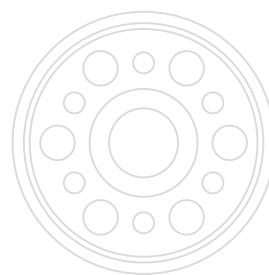


# TOSHIBA



**STORAGE SOLUTIONS**  
HARD DISK DRIVES  
FOR PROFESSIONAL &  
PERSONAL USE





## Contents

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## The right hard disk drive for every mission

No storage requirement is the same. On our journeys, we generate an increased amount of data, day in, day out.

Be it for private or professional use, server-based storage, video surveillance, gaming or stylish mobile solutions, Toshiba delivers the right hard disk drives for a variety of storage needs.

Toshiba's external storage product range is categorized into different classes - Standard, Advanced, Premium and Specialty - addressing the individual storage requirements of users and helping them to find the perfect fit for their storage needs, whether it's a solution for simple plug-and-play operation, gaming or cross-platform use for smartphones, tablets, Macs and Windows PCs.

Toshiba's internal HDDs are divided into application areas for private and professional use, including NAS, surveillance and high-performance drives. Additionally, the extensive line-up of Enterprise storage solutions meet highest requirements to support business- and mission-critical applications.

For over 50 years Toshiba has been developing and delivering high-quality hard disk drives to the market. View the current portfolio on the following pages and find your perfect storage solution.

Everything is possible – with the right partner and hard disk drive.



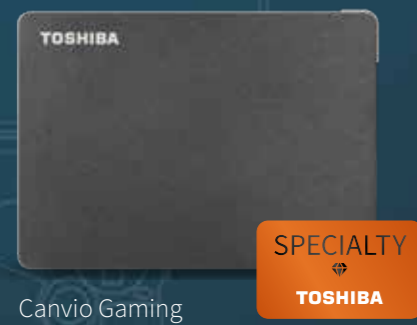
## Portable Storage

Storage is one of the most vital components of our ever-expanding digital lifestyles. In order to suit various demands, Toshiba offers a custom-designed range of external storage products to simplify your everyday life. Whether you are looking for a hard drive with auto-backup software for your laptop or PC, or a safe place for your blogging content – with Toshiba you will find the right solution.

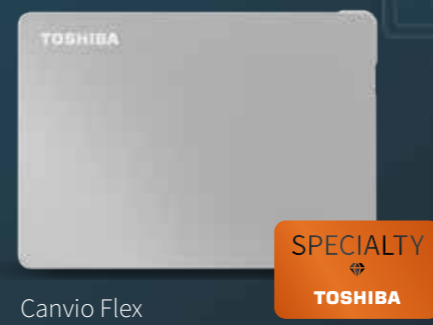
Our external storage product line-up is categorized according to performance criteria and features. With clear colour codings and shopping guides, customers immediately know which products best meet their requirements.



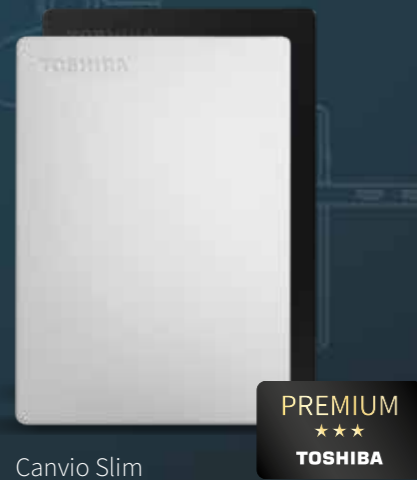
Watch video



Canvio Gaming



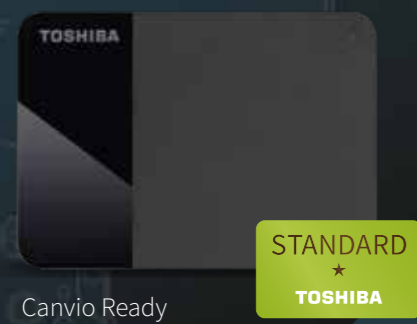
Canvio Flex



Canvio Slim



Canvio Advance



Canvio Ready



Canvio Basics

## Specialty



**Hard drives with something special built in.**

There are times when ordinary drives are not good enough for special storage needs. Whether it's a high-performance storage upgrade for your gaming console or a drive that is compatible with your growing stable of devices, you can be sure to find the right solution in the Canvio Gaming or the Canvio Flex. Everything is possible – with the right drive.



## Premium



**Make no compromises – every device should fit your style and exceed your expectations.**

In the world of design, special details make the difference. That's what makes the Canvio Slim our top line of hard drives. Premium reliability and performance are packed into a slim aluminium casing that looks great. And there are extras you won't find on most hard drives, like software for added protection and a 3-year extended warranty. Everything is possible – with the right drive.



## Advanced



**When your journey leads you to stunning places, you need a safe place to store all the impressions.**

Life is full of adventure. Every day there are memories to save and new experiences to report on. The Canvio Advance line of hard drives are your perfect companions. You get high-performance, top-quality and advanced functions in a modern design. And since security and backup software are included, you can rest assured your data is always safe. Everything is possible – with the right drive.



## Standard



**Save your special memories on a special hard drive.**

Life flies by quickly. Before you know it, the kids are grown up and memories of the great times start to fade. Make your Toshiba Canvio Basics or Canvio Ready the treasure chest for all the special moments. It's easy to keep your memories safe and revisit them in clear detail later. Everything is possible – with the right drive.



## Canvio Flex

Smart Storage. Made to Adapt.  
For Smartphones, Tablets, Macs  
and Windows PCs\*



### One Drive. Many Devices.

The Canvio Flex offers storage in its most compatible form, enabling you to seamlessly store and access your data on Mac, Windows PC, tablets devices and smartphones with USB-C® ports\* with a simple one-stop solution.



2.5" 2.5" External Hard Drive

- Elegant silver finish
- SuperSpeed USB 3.2 Gen 1 port
- USB-powered
- Includes USB Type-C® and USB Type-A cable
- Compatible with smartphones / tablets/ Macs / Windows PCs
- 3-year warranty

Colour



Capacities

4 TB 2 TB 1 TB



View more

\* Please check device compatibility

## Canvio Gaming

Level up your Storage.



### More Games. More Wins.

With the Canvio Gaming portable hard drive, you won't have to worry about deleting games to make room for the hottest new release. The sleek, lightweight design allows you to hold up to 100 games\*\* in an easy to carry lightweight casing. Offering up to 4 TB of storage capacity for your data, your gaming library has room to grow.



2.5" 2.5" External Hard Drive

- Sleek black finish
- SuperSpeed USB 3.2 Gen 1 port
- USB-powered
- Works with PlayStation / Xbox / PC
- Store up to 25+ games per TB\*\*

Colour



Capacities

4 TB 2 TB 1 TB



View more

\*\* Average game size: 36 GB

## Canvio Slim

All of the Room. None of the Weight.



### Stylish and elegant companion.

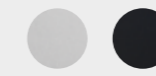
Up to 2 TB stored in a super slim and lightweight aluminium design, make this drive a stylish and elegant companion for any device, whether it is on your desk or on the move. With several useful features and a three-year product warranty, the Canvio Slim keeps your data well protected. Available in two different colours: silver or black, the Canvio Slim always suits the occasion.



2.5" 2.5" External Hard Drive

- Aluminium finish
- SuperSpeed USB 3.2 Gen 1 port
- USB-powered
- Auto-backup software
- Password protection software
- 3-year warranty

Colours



Capacities

2 TB 1 TB



View more

## Canvio Advance

Secured in Style. Take Life Anywhere.



### Modern design.

The Canvio Advance features a stylish, textured design in four trendy colours. You can choose from black, light beige, red and green based on your preference for up to 4 TB of mobile storage in the palm of your hand.



2.5" 2.5" External Hard Drive

- Textured finish
- SuperSpeed USB 3.2 Gen 1 port
- USB-powered
- Auto-backup software
- Password protection software

Colours



Capacities

4 TB 2 TB 1 TB



View more

# Canvio Basics

Storage Made Simple.



STANDARD  
★  
TOSHIBA

### Your compact companion.

High capacity storage in a conveniently compact, matt black casing. Available in several capacity sizes up to 4 TB, Canvio Basics hard drives are perfect for storing data, music, movies, and pictures.



2.5" 2.5" External Hard Drive

- ☑ Matt finish
- ☑ SuperSpeed USB 3.2 Gen 1 port
- ☑ USB-powered
- ☑ Plug-and-play operation

Colour



Capacities

4 TB 2 TB 1 TB



View more

# Canvio Ready

Ready to Store. Simple to Use.



STANDARD  
★  
TOSHIBA

### A place for all your files.

The Canvio Ready is available in a range of different storage sizes up to 4 TB. So whatever your portable storage requirements, whether you're saving documents, photos, movies, or a combination, Canvio Ready provides the ideal, high-capacity solution in its distinctive two-tone matte and gloss black finish.



2.5" 2.5" External Hard Drive

- ☑ Two-tone matte and gloss finish
- ☑ SuperSpeed USB 3.2 Gen 1 port
- ☑ USB-powered
- ☑ Drag-and-drop use

Colour



Capacities

4 TB 2 TB 1 TB



View more

# Technical data

Model	Category	Casing	Part Number	Capacity	Interface	USB Connector Type	PC	Mac	Other Compatibility	Backup Software	Password Protection
<b>Canvio Flex</b> ⓘ											
	SPECIALTY ★ TOSHIBA	Elegant silver finish	HDTX140ESCCA	4 TB	USB 3.2 Gen 1	Type-C® & Type-A	✓	✓		-	-
			HDTX120ESCAA	2 TB							
			HDTX110ESCAA	1 TB							
<b>Canvio Gaming</b> ⓘ											
	SPECIALTY ★ TOSHIBA	Sleek black finish	HDTX140EK3CA	4 TB	USB 3.2 Gen 1	Type-A	✓	✓		-	-
			HDTX120EK3AA	2 TB							
			HDTX110EK3AA	1 TB							
<b>Canvio Slim</b> ★★★											
	PREMIUM ★★★ TOSHIBA	Aluminium finish	HDTD320EK3EA	2 TB	USB 3.2 Gen 1	Type-A	✓	✓ <sup>1</sup>	-	✓	✓
			HDTD310EK3DA	1 TB							
			HDTD320ES3EA	2 TB							
			HDTD310ES3DA	1 TB							
<b>Canvio Advance</b> ★★											
	ADVANCED ★★ TOSHIBA	Textured finish	HDTCA40EK3CA	4 TB	USB 3.2 Gen 1	Type-A	✓	✓ <sup>1</sup>	-	✓	✓
			HDTCA20EK3AA	2 TB							
			HDTCA10EK3AA	1 TB							
		Textured finish	HDTCA40ER3CA	4 TB							
			HDTCA20ER3AA	2 TB							
			HDTCA10ER3AA	1 TB							
		Textured finish	HDTCA40EW3CA	4 TB							
			HDTCA20EW3AA	2 TB							
			HDTCA10EW3AA	1 TB							
		Textured finish	HDTCA40EG3CA	4 TB							
			HDTCA20EG3AA	2 TB							
			HDTCA10EG3AA	1 TB							
<b>Canvio Basics</b> ★											
	STANDARD ★ TOSHIBA	Matt	HDTB540EK3CA	4 TB	USB 3.2 Gen 1	Type-A	✓	✓ <sup>1</sup>	-	-	-
			HDTB520EK3AA	2 TB							
			HDTB510EK3AA	1 TB							
<b>Canvio Ready</b> ★											
	STANDARD ★ TOSHIBA	Two-toned matte and gloss finish	HDTTP340EK3CA	4 TB	USB 3.2 Gen 1	Type-A	✓	✓ <sup>1</sup>	-	-	-
			HDTTP320EK3AA	2 TB							
			HDTTP310EK3AA	1 TB							

USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum. Android is a trademark of Google LLC. Mac and macOS are trademarks of Apple Inc. Microsoft, Windows and Xbox are trademarks of the Microsoft group of companies. „PlayStation“ is a registered trademark or a trademark of Sony Interactive Entertainment Inc. Canvio Gaming; Estimated game storage is based on assumption of average game size of 36 GB for current generation games. The number of games actually stored may vary depending on file size, formatting, console software, and other programs or factors. Original discs may be required to verify ownership for games purchased and loaded from disc. Internet connection and original game owner's account may be required.

<sup>1</sup> Requires reformatting for macOS.  
<sup>2</sup> Please check compatibility list.

## Quality in every detail

Best materials, highly rated hard drive disks and fast controllers:  
That is what Toshiba external storage is made of.



**Micro-B USB 3.2 Gen 1**  
HDD interface connector



**Hard Drives**

Toshiba quality 2.5" hard drive disks with up to 4 TB capacity

**Controller**

Fast USB 3.2 onboard controller as part of the HDDs circuit board layout



## Software

**Password Protection**

Stop unauthorised users from accessing your private information with the included Toshiba Storage Security Software, allowing you to secure your hard drive with a unique password.



**Backup Software**

The included Toshiba Storage Backup Software comes with an intuitive and user-friendly interface, making the backup of your data a breeze. Simply choose your individual files or folders, intervals and time settings for your backups and let the software take care of the rest.



## USB Type-C® – Future-proof solution

**Be prepared for connectivity of the future.**

Most modern devices nowadays come with an USB-C® interface. That's why some of our hard drives include an USB-C® cable, so there's no need to buy an additional adapter. Ready to plug in to future devices out of the box.

## Built for performance and reliability

Toshiba is renowned the world over for 50 years of leading innovation – and the power behind its hard drive solutions is no exception. Our enterprise-level developments meet the industry standards with proven reliability. Designed for high capacity and excellent performance, you can be sure that Toshiba's wealth of experience in hard drives is at work in your storage system.

**Advanced HDD Technology – FC-MAMR**

Toshiba's high capacity HDDs feature Flux Control Microwave Assisted Magnetic Recording (FC-MAMR) Technology – a breakthrough technology that uses microwave energy to ensure more of the write energy is focused into the platter, achieving an increased areal density capability (ADC) of up to 20 %.

**Laser sealed helium**

The Toshiba HDDs with 12 TB or more use a helium-sealed design, providing the power-efficient capacity and storage density needed by cloud-scale and enterprise storage solution providers to achieve their TCO objectives. Toshiba's laser welding technology ensures that the helium remains securely sealed inside the drive enclosure.

**High Reliability**

Providing reliability for the ultimate peace of mind, Toshiba HDDs deliver up to 2.5M hours of MTTF, achieving an AFR (Annualized Failure Rate) in 24/7 operation of down to 0.35 % - at a rated workload as high as 550 TB/year.

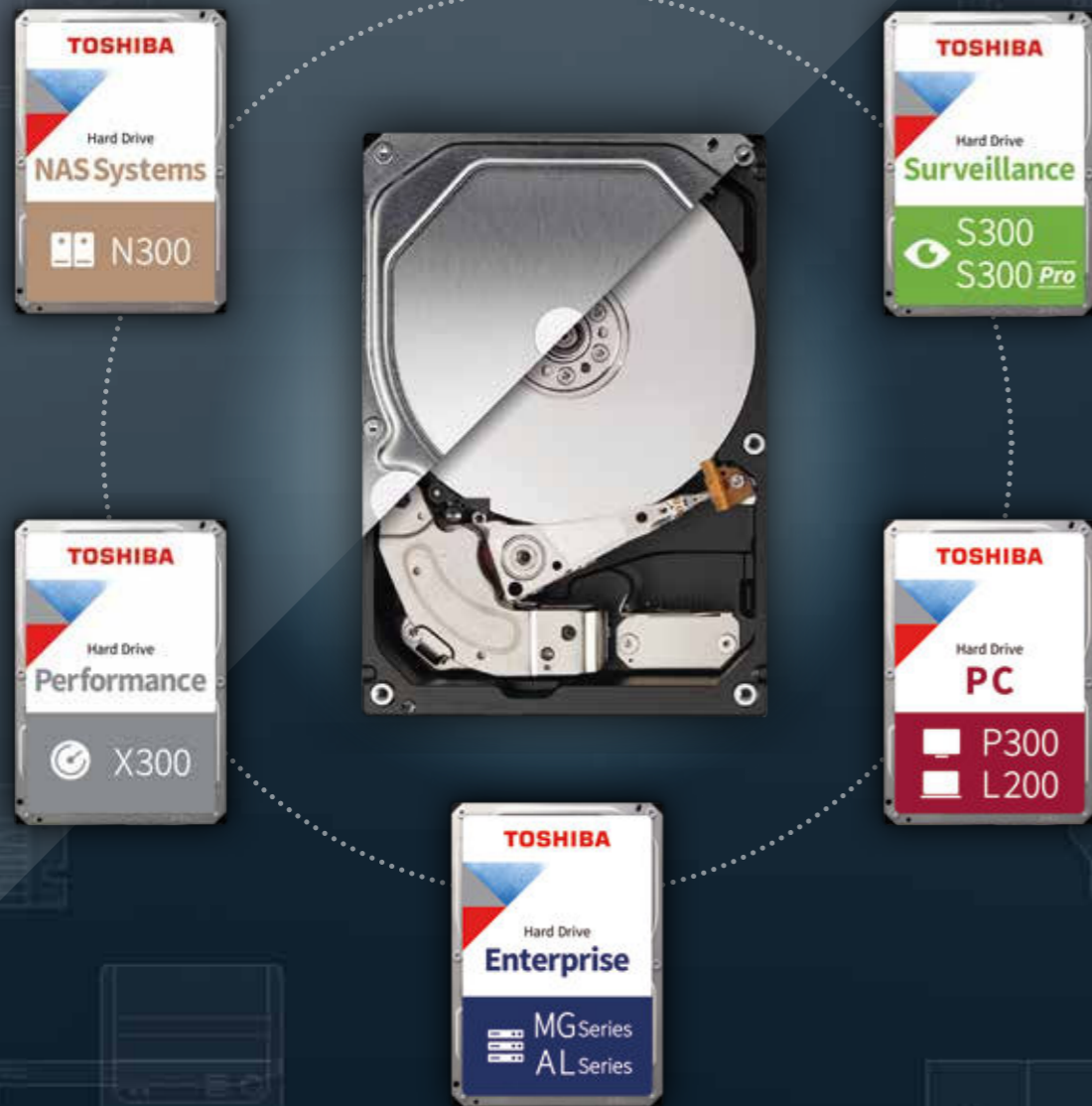
**Industry-leading 10 disk platter design**

The Toshiba 20, 22 & 24 TB HDD feature a 10-disk platter design – achieving high storage density levels by stacking the maximum numbers of platters in the industry-leading 3.5" form factor.



# Internal Hard Disk Drives

Toshiba offers a broad range of internal hard drives to keep pace with the ever-growing specific requirements of data storage. Choose from a wide range of reliable hard drives that deliver innovative technology and best performance and are tailored to your storage needs. Targeting different application areas such as NAS, Surveillance, Gaming, PC, laptop, and Enterprise storage, Toshiba provides the highest standards to support your personal and business missions.



Everything is possible – with the right drive.



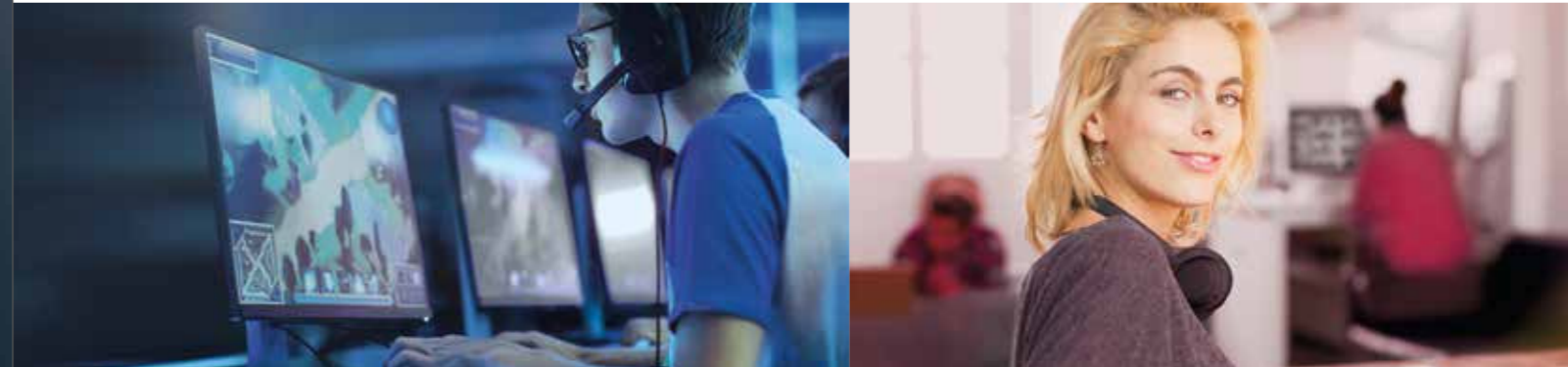
## NAS Hard Drives

Offering special reliability for NAS and other high performance storage systems, Toshiba's NAS drives are optimized to meet the reliability, endurance, performance, and scalability requirements of 24/7 high-capacity storage for personal, home office, and small business use.



## Surveillance Hard Drives

In a society where 24/7 security is essential and real-time data availability is paramount, intelligent surveillance analysis starts with secure and reliable storage. Toshiba's Surveillance drives offer high reliability and are designed to cope with the concurrent access requirements of CCTV systems.



## Performance Hard Drives

Delivering reliable storage, large capacities, and high performance, Toshiba's Performance hard drives are the perfect choice for PC gamers, graphic designers, and professionals with demanding storage requirements.



## PC Hard Drives

Boost the storage capacity of your laptop, PC, or game console to help ensure fast, stable file transfer, for smooth and responsive computing. Designed for professionals and everyday users who demand high-performing powerful storage.



## Enterprise Hard Drives

Designed for server and storage environments where high data capacity and performance matters, Toshiba's reliable Enterprise drives offer the necessary capacities and performance features required to run business- and mission-critical applications in enterprise, datacenter and cloud environments.



## N300

Built for 24/7 reliability



View more



### Toshiba's N300

The 3.5-inch internal hard disk offers unprecedented reliability for NAS and other high-performance storage systems. It is optimized to meet the reliability, endurance, performance, and scalability requirements of 24/7 high-capacity storage for personal, home office, and small business use.

SATA 3.5" SATA Hard Drive

RPM 7,200 rpm

512 MB buffer (22 | 20 | 18 | 16 | 14 | 12 TB)  
256 MB buffer (10 | 8 | 6 | 4 TB)

Toshiba Stable Platter Technology

High reliability and enhanced real-time performance

High-endurance design

3-year warranty

Capacities

22 TB 20 TB 18 TB 16 TB 14 TB  
12 TB 10 TB 8 TB 6 TB 4 TB

### Use for:

- NAS and Multimedia Server
- Desktop RAID and Server
- Private Cloud Storage
- Small Business Server and Storage

## X300

Level up your drive performance



View more



### Toshiba's X300

This 3.5-inch internal hard drive is designed for your professional or gaming PC – delivering reliable, large capacity, incredibly high-performance storage, made possible by a number of advanced features, including an ultra-high 512 MB buffer. It even features improved positional accuracy for stable recording. The X300 is ideal for PC gamers, graphic designers, and other users with demanding storage requirement.

SATA 3.5" SATA Hard Drive

RPM 7,200 rpm

512 MB buffer

Toshiba Stable Platter Technology

Toshiba Dynamic Cache Technology

Capacities

20 TB 18 TB 16 TB 14 TB 12 TB  
10 TB 8 TB 6 TB 4 TB

### Use for:

- Powerful Desktop Workstations
- All-in-one PCs
- Gaming computers
- Home Media computers

## S300 Pro

Built tougher to protect



View more



### Toshiba's S300 Pro

Elevate your security solutions with the Toshiba S300 Pro Surveillance Hard Drive. Engineered for relentless reliability, it offers up to a massive 10 TB storage capacity to capture and retain every critical moment for long periods with real-time object identification and face recognition. Accommodating up to 64 video cameras, it's ideal for comprehensive surveillance setups. Benefit from high-end drive performance that delivers superior video quality and seamless streaming.

SATA 3.5" SATA Hard Drive

RPM 7,200 rpm

512 MB buffer

Up to 64 cameras

24/7 24/7 operation

5-year warranty

Capacities

10 TB 8 TB 6 TB 4 TB

### Use for:

- Surveillance Digital Video Recorders (sDVR)
- Surveillance Network Video Recorders (sNVR)
- Hybrid sDVR (analog and IP)
- RAID Storage Arrays for Surveillance

## S300

Always On, Always Watching



View more



### Toshiba's S300

With surveillance systems, nothing but the best is good enough. The Toshiba 3.5-inch S300 is built to meet the highest demands. With support for up to 64 high-resolution surveillance video cameras simultaneously and up to 6 TB capacity, it brings everything into clear view. Each S300 is built with the highest-quality components and has passed rigorous tests to ensure 24/7 reliability and performance. That's Toshiba quality you can trust under the harshest working conditions.

SATA 3.5" SATA Hard Drive

RPM 5,400 rpm (6 | 4 | 2 TB)  
5,700 rpm (1 TB)

256 MB buffer (6 | 4 TB)  
128 MB buffer (2 TB)  
64 MB buffer (1 TB)

Up to 64 cameras

24/7 24/7 operation

3-year warranty

Capacities

6 TB 4 TB 2 TB 1 TB

### Use for:

- Surveillance Digital Video Recorders (sDVR)
- Surveillance Network Video Recorders (sNVR)
- Hybrid sDVR (analog and IP)



# P300

Performance meets reliability



View more



### Toshiba's P300

The 3.5-inch P300 Desktop PC Hard Drive delivers high performance for everyday home or office computing needs. With its two-stage actuator, you can count on smooth, responsive processing power. In addition, your data and media are secured with a loading ramp design to prevent data loss or drive wear and tear. The P300 is available in capacities up to 6 TB.

SATA 3.5" SATA Hard Drive

RPM 5,400 rpm (6 | 4 TB)  
7,200 rpm (2 TB)

256 MB buffer (2 TB)  
128 MB buffer (6 | 4 TB)

Capacities

6 4 2  
TB TB TB

### Use for:

- Desktop Workstations
- All-in-one PCs
- Desktop PCs
- External enclosures

# L200

Take your laptop to the next level



View more



### Toshiba's L200

This 2.5-inch internal hard drive is designed for everyday laptop users and gamers – and it's ideal for boosting and upgrading the storage capacity of your laptop PC or games console by up to 2 TB. Perpendicular Magnetic Recording and Tunnel Magneto-Resistive technologies also ensure fast, stable recording that makes the most of your hard drive space.

SATA 2.5" SATA Hard Drive

RPM 5,400 rpm

128 MB buffer

Toshiba Dynamic Cache Technology

Capacities

2 1  
TB TB

### Use for:

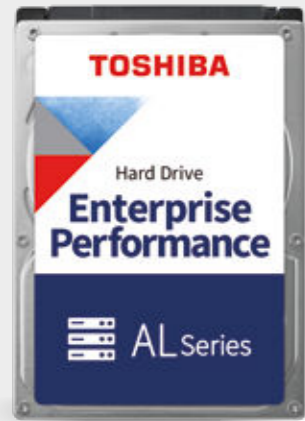
- Notebooks
- Game consoles
- External enclosures

# Technical data

Model	Retail Number	Bulk Number	Capacity	Interface	RPM	Cache	Height	Recording Technology	RAID	24/7 Operation	Warranty (years)
<b>N300 NAS Hard Drive 3.5"</b>											
	-	HDWG62CUZSVA	22 TB	SATA 6 Gbit/s	7,200	512 MB	26.1 mm	CMR	✓	✓	3
	-	HDWG62AUZSVA	20 TB			512 MB					
	-	HDWG51JUZSVA	18 TB			512 MB					
	-	HDWG51GUZSVA	16 TB			512 MB					
	-	HDWG51EEZSTA	14 TB			512 MB					
	-	HDWG51CEZSTA	12 TB			512 MB					
	-	HDWG11AEZSTA	10 TB			256 MB					
	-	HDWG480EZSTA	8 TB			256 MB					
	-	HDWG460EZSTA	6 TB			256 MB					
	-	HDWG440EZSTA	4 TB			256 MB					
<b>X300 Performance Hard Drive 3.5"</b>											
	-	HDWR62AUZSVA	20 TB	SATA 6 Gbit/s	7,200	512 MB	26.1 mm	CMR	-	-	2
	-	HDWR51JUZSVA	18 TB			512 MB					
	-	HDWR51GUZSVA	16 TB			512 MB					
	-	HDWR51EEZSTA	14 TB			512 MB					
	-	HDWR51CEZSTA	12 TB			512 MB					
	-	HDWR71AEZSTA	10 TB			512 MB					
	-	HDWR780EZSTA	8 TB			512 MB					
	-	HDWR760EZSTA	6 TB			512 MB					
	-	HDWR740EZSTA	4 TB			512 MB					
<b>S300 Pro Surveillance Hard Drive 3.5"</b>											
	-	MD10ADA10TV	10 TB	SATA 6 Gbit/s	7,200	512 MB	26.1 mm	CMR	✓	✓	5
	-	MD10ADA800V	8 TB			512 MB					
	-	MD10ADA600V	6 TB			512 MB					
	-	MD10ADA400EV	4 TB			512 MB					
<b>S300 Surveillance Hard Drive 3.5"</b>											
	-	HDWT860UZSVA	6 TB	SATA 6 Gbit/s	5,400	256 MB	26.1 mm	SMR	-	✓	3
	-	HDWT840UZSVA	4 TB			256 MB					
	-	HDWT720UZSVA	2 TB			128 MB					
	-	HDWV110UZSVA	1 TB			64 MB					
<b>P300 Desktop PC Hard Drive 3.5"</b>											
	-	HDWD260UZSVA	6TB	SATA 6 Gbit/s	5,400	128 MB	26.1 mm	SMR	-	-	2
	-	HDWD240UZSVA	4TB			128 MB					
	-	HDWD320UZSVA	2TB			256 MB					
<b>L200 Laptop PC Hard Drive 2.5"</b>											
	-	HDWL120UZSVA	2 TB	SATA 6 Gbit/s	5,400	128 MB	9.5 mm	SMR	-	-	2
	-	HDWL110UZSVA	1 TB			128 MB	7.0 mm				

# AL Series

Enterprise Performance HDD



### Toshiba's AL Series

Toshiba's Enterprise Performance Hard Drive – AL Series delivers high storage densities with rapid data transfer speed, backed up by a 5-year warranty. You can trust the AL Series to deliver day in and day out, 24/7, even in the most demanding high-performance server and storage systems. Especially when traffic is high, the hard drives have the speed needed to perform simultaneous transactions smoothly and efficiently. Additionally, proprietary approve the assurance that your data will stay in safe hands.

- SAS 2.5" SAS Hard Drive
- 24/7 24/7 operation
- Unlimited workload (TB/year)
- MTTF of 2 mill. hours
- Persistent Write Cache Technology
- Flexibility in block size and SIE and SED options
- 5-year warranty



View more

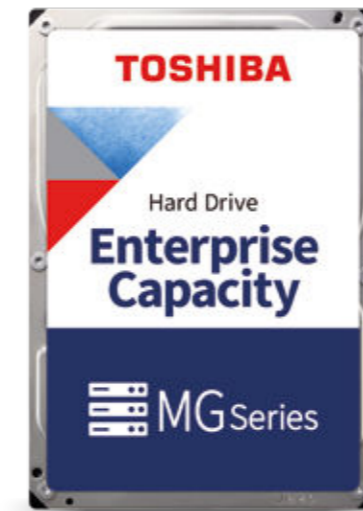
### Use for:

- Mission-Critical Enterprise Server and Storage Systems
- Business Database Server with High Workloads
- Big Data Analytics
- Virtualized Storage Systems

AL Series	AL14SX	AL15SE
Capacity (GB)	300   600   900	300   600   900   1,200   1,800   2,400
I/F speed	SAS 12 Gbit/s	
RPM	15,000	10,500
Cache	128 MB	
MTTF	2.0 mill. hrs.	

# MG Series

Enterprise Capacity HDD



### Toshiba's MG Series

Toshiba's Enterprise Capacity Hard Drive – MG Series offers formatted capacities as high as 24 TB with interface options including SATA and SAS and delivers 24/7 operation at a workload of 550 TB/year. The MG Series is ideal for enterprise storage array and industrial server and storage systems. It provides the capacity and advanced technologies to meet the special demands of datacenter and cloud-scale infrastructures.

- 3.5" SATA or SAS Hard Drive
- 24/7 24/7 operation
- Toshiba Stable Platter Technology
- Persistent Write Cache Technology
- 550 TB/year workload
- Flexibility in block size and SIE and SED options
- 5-year warranty



View more

### Use for:

- Business Critical Enterprise Server and Storage Systems
- Enterprise Storage Arrays
- Cloud and Hyperscale Storage Systems
- Big Data, Distributed File Systems
- Enterprise Archive and Data Recovery Systems
- Industrial Server- and Storage Systems

MG Series	MG10			MG09	MG10	MG11
Capacity (TB)	1	2   4	6   8   10	12   14   16   18	20	22   24
I/F speed	SAS 12 Gbit/s					
	SATA 6 Gbit/s					
RPM	7,200					
Cache	512 MB					1024 MB
Sector length	512n	512e*, 512n	512e*	512e, 4Kn		512e*
MTTF	2 mill. Hrs.			2.5 mill. Hrs.		
Sealed	Air			Helium		

\* Changeable to 4Kn by field-reformatting



# Technical data



AL Series

Enterprise Performance HDD

Model Number	Specification								Performance		Reliability				
	Form-factor	Fill Gas & Recording	Capacity (GB)	Block Size (Byte)	Spindle Speed (RPM)	Buffer Size (MiByte)	Interface	Security Options	Data Rate (sustained) (MB/s)	Operating Power (W) typ.	MTTF (hrs)	Unrecoverable Error Rate	Duty	Rated Workload (TB/year)	Warranty (years)
<b>HIGHEST PERFORMANCE HDD (15K RPM) FOR SERVERS – BUSINESS DATABASE, ONLINE TRANSACTION, HIGH PERFORMANCE COMPUTING</b>															
AL14SXB30EN	2.5"	Air CMR	300	512n	15,000	128	SAS 12 Gbit/s	SIE/SED	272	9.0	2.0 mill.	1 in 10 <sup>16</sup>	24/7	unlimited	5
AL14SXB60EN			600												
AL14SXB90EN			900												
AL14SXB30EE			300	512e	15,000	128	SAS 12 Gbit/s	SIE/SED	304	9.0	2.0 mill.	1 in 10 <sup>16</sup>	24/7	unlimited	5
AL14SXB60EE			600												
AL14SXB90EE			900												
AL14SXB30EA			300	4Kn	15,000	128	SAS 12 Gbit/s	SIE/SED	304	9.0	2.0 mill.	1 in 10 <sup>16</sup>	24/7	unlimited	5
AL14SXB60EA			600												
AL14SXB90EA			900												
<b>PERFORMANCE HDD (10K RPM) FOR SERVERS AND STORAGE – MISSION CRITICAL BUSINESS DATABASE AND HIGH PERFORMANCE STORAGES</b>															
AL15SEB030N	2.5"	Air CMR	300	512n	10,500	128	SAS 12 Gbit/s	SIE/SED	236	6.5	2.0 mill.	1 in 10 <sup>16</sup>	24/7	unlimited	5
AL15SEB060N			600												
AL15SEB090N			900												
AL15SEB120N			1,200	512e	10,500	128	SAS 12 Gbit/s	SIE/SED	273	7.0	2.0 mill.	1 in 10 <sup>16</sup>	24/7	unlimited	5
AL15SEB06EQ			600												
AL15SEB09EQ			900												
AL15SEB12EQ			1,200												
AL15SEB18EQ			1,800												
AL15SEB24EQ			2,400												
AL15SEB06EP			600	4Kn	10,500	128	SAS 12 Gbit/s	SIE/SED	273	7.0	2.0 mill.	1 in 10 <sup>16</sup>	24/7	unlimited	5
AL15SEB09EP			900												
AL15SEB12EP			1,200												
AL15SEB18EP			1,800												
AL15SEB24EP			2,400												

## Footnotes

• Definition of capacity: A gigabyte (GB) is 1,000,000,000 bytes and a terabyte (TB) is 1,000,000,000,000 bytes. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB = 2<sup>30</sup> bytes = 1,073,741,824 bytes and 1TB = 2<sup>40</sup> = 1,099,511,627,776 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 and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

• A mebibyte (MiB) means 2<sup>20</sup>, or 1,048,576 bytes.  
 • „2.5-inch“ and „3.5-inch“ mean the form factor of HDDs. They do not indicate drive's physical size.  
 • Product image may represent a design model.  
 • Number of surveillance cameras support capability is defined by performance simulation with High Definition cameras as 2 MiB/s rate.

• A = Advanced Format Sector (4k), E = 512byte Sector Emulated, N = 512byte Sector Native, P = 4Kn Q=512e  
 • Toshiba refers to "storage products" as products that can store data, such as HDD.  
 • MTTF (Mean Time to Failure) is not a guarantee or estimate of product life; it is a statistical value related to mean failure rates for a large number of products which may not accurately reflect actual operation. Actual operating life of the product may be different from the MTTF. Read and write speed may vary depending on the host device, read and write conditions and file size.

• Images displayed of the N300, X300, S300 Pro, S300, P300 and L200 Internal Hard Drives as well as of the MG and AL Series are for illustration purposes only and do not show the actual products. The images are merely intended to help illustrate the function of the products.  
 • SIE = Sanitize Instant Erase, SED = Self Encrypting Drives, FIPS = Federal Information Processing Standard  
 • Company names, product names, and service names mentioned herein may be trademarks of their respective registrants and/or owners as well.

# Technical data



MG Series

Enterprise Capacity HDD

Model Number	Specification								Performance		Reliability																
	Form-factor	Fill Gas & Recording	Capacity (GB)	Block Size (Byte)	Spindle Speed (RPM)	Buffer Size (MiByte)	Interface	Security Options	Data Rate (sustained) (MB/s)	Operating Power (W) typ.	MTTF (hrs)	Unrecoverable Error Rate	Duty	Rated Workload (TB/year)	Warranty (years)												
<b>ENTERPRISE CAPACITY HDD WITH SAS 12 GBIT/S INTERFACE - BUSINESS CRITICAL STORAGES WITH LARGE CAPACITY</b>																											
MG10SDA200N	3.5"	Air CMR	2,000	512n	7,200	512	SAS 12 Gbit/s	SIE/SED	204	8.7	2.0 mill.	1 in 10 <sup>16</sup>	24/7	550	5												
MG10SDA400N			4,000							239						9.6											
MG09SCA12TA		Helium MAMR	12,000	4Kn	7,200	512	SAS 12 Gbit/s	SIE/SED	281	8.4	2.5 mill.	1 in 10 <sup>16</sup>	24/7	550	5												
MG09SCA14TA			14,000							8.9																	
MG09SCA16TA			16,000							9.2																	
MG09SCA18TA			18,000							9.2																	
MG10SCA20TA			20,000							9.6																	
MG10SDA200E			Air CMR							2,000						512e	7,200	512	SAS 12 Gbit/s	SIE/SED	281	8.0	2.0 mill.	1 in 10 <sup>16</sup>	24/7	550	5
MG10SDA400E										4,000												8.9					
MG10SDA600E										6,000												9.7					
MG10SDA800E		8,000		10.5																							
MG10SDA10TE		10,000		11.3																							
MG09SCA12TE		12,000		8.4																							
MG09SCA14TE		14,000		8.9																							
MG09SCA16TE		16,000		9.2																							
MG09SCA18TE		18,000	9.2																								
MG10SCA20TE		20,000	9.6																								
MG10SFA22TE		22,000	284	10.2																							
MG11SCA24TE		24,000	309	9.6																							
<b>ENTERPRISE CAPACITY HDD WITH SATA 6 GBIT/S INTERFACE - MAINSTREAM SERVER AND STORAGE, HYPERSCALE- AND CLOUD STORAGE</b>																											
MG10ADA100N	3.5"	Air CMR	1,000	512n	7,200	512	SATA 6 Gbit/s	SIE/SED	221	7.6	2.0 mill.	1 in 10 <sup>16</sup>	24/7	550	5												
MG10ADA200N			2,000							221						8.3											
MG10ADA400N		4,000	239	9.3																							
MG09ACA12TA		Helium MAMR	12,000	4Kn	7,200	512	SATA 6 Gbit/s	SIE/SED	281	7.9	2.5 mill.	1 in 10 <sup>16</sup>	24/7	550	5												
MG09ACA14TA			14,000							8.5																	
MG09ACA16TA			16,000							8.3																	
MG09ACA18TA			18,000							8.3																	
MG10ACA20TA			20,000							9.3																	
MG10ADA200E			Air CMR							2,000						512e	7,200	512	SATA 6 Gbit/s	SIE/SED	281	7.7	2.0 mill.	1 in 10 <sup>16</sup>	24/7	550	5
MG10ADA400E										4,000												8.6					
MG10ADA600E										6,000												9.3					
MG10ADA800E		8,000		10.1																							
MG10ADA10TE		10,000		11.0																							
MG09ACA12TE		12,000		7.9																							
MG09ACA14TE		14,000		8.5																							
MG09ACA16TE		16,000		8.3																							
MG09ACA18TE		18,000	8.3																								
MG10ACA20TE		20,000	9.3																								
MG10AFA22TE		22,000	284	9.8																							
MG11ACA24TE		24,000	309	9.2																							

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