

**TOSHIBA**



## **Storage Solutions**

Hard Disk Drives  
for professional &  
personal use



[toshiba-storage.com](http://toshiba-storage.com)



## Contents

External HDDs – Categories	4 – 5
External HDDs – Product pages	6 – 9
Technical data & features – External HDDs	10 – 11
Internal HDDs – Categories	12 – 13
Internal HDDs – Product pages	14 – 16
Technical data – Internal HDDs	17
Enterprise HDDs – Product pages	18 – 19
Technical data – Enterprise HDDs	20 – 23

## 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.

The product range is categorized into different classes. Along with our well-known categories of Standard, Advanced and Premium external drives, we are now introducing the new Specialty category to address specific external storage demands, such as gaming or cross-platform use for Mac, Windows PC and tablets.

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



## Quality in every detail

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

### Casing

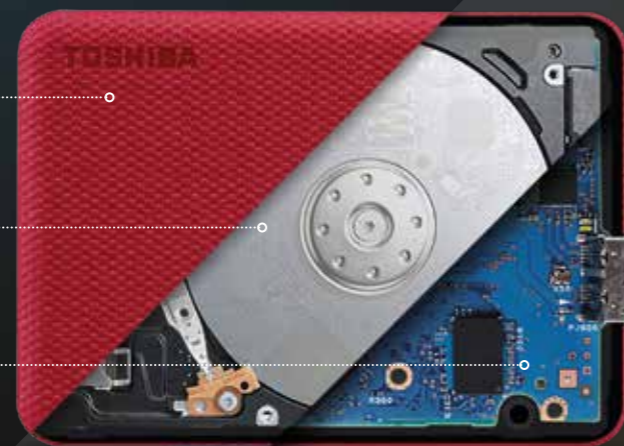
Selected designs made of high quality plastic or metal combine functionality and style

### 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



Micro-B USB 3.2 Gen 1 HDD interface connector



## 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 Mac, Windows PC and Tablets.



View more



### 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 and tablet devices 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 cables
- Compatible with Mac / Windows PC / Tablet
- 3-year warranty

Colour



Capacities

4 TB 2 TB 1 TB

\* Please check device compatibility



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

\*\* Average game size: 36 GB

## Canvio Gaming

Level up your Storage.



View more



### 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.

## Canvio Slim

All of the Room. None of the Weight.



View more



### 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

## Canvio Advance

Secured in Style. Take Life Anywhere.



View more



### Modern design.

The Canvio Advance features a stylish, textured design in three trendy colours. You can choose from black, light beige or red 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

## Canvio Basics

Storage Made Simple.



View more

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\* 2\* 1\* 500  
TB TB TB GB

\* also available with USB Type-C® cable: Canvio Basics USB-C® in 1 | 2 | 4 TB

## Canvio Ready

Ready to Store. Simple to Use.



View more

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 2 1  
TB TB TB

# 3.5" External Hard Drive

## Canvio for Desktop

High capacity, high speed.



View more

PREMIUM  
★★★  
TOSHIBA



### Stylish and powerful.

The Canvio for Desktop's enclosure comes in a stylish piano black finish and allows for horizontal as well as vertical positioning. Thanks to a special internal shock sensor and ramp loading technology, your data is always protected.



3.5" 3.5" External Hard Drive

- Stylish and versatile design
- SuperSpeed USB 3.0/2.0 port
- High Performance
- Security lock slot

Colour



Capacities

6 4  
TB TB



# 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 for Desktop</b> ★★★											
	PREMIUM TOSHIBA	Piano Gloss	HDWC360EK3JB	6 TB	USB 3.2 Gen 1	Type-A	✓	✓ <sup>1</sup>	-	-	-
			HDWC340EK3JB	4 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							
<b>Canvio Basics</b> ★											
	STANDARD TOSHIBA	Matt	HDTB440EK3CA	4 TB	USB 3.2 Gen 1	Type-A	✓	✓ <sup>1</sup>	-	-	-
			HDTB420EK3AA	2 TB							
			HDTB410EK3AA	1 TB							
			HDTB405EK3AA	500 GB							
<b>Canvio Basics USB-C</b> ★											
	STANDARD TOSHIBA	Matt	HDTB440EKCCA	4 TB	USB 3.2 Gen 1	Type-C®	✓	✓ <sup>1</sup>	-	-	-
			HDTB420EKCAA	2 TB							
			HDTB410EKCAA	1 TB							
<b>Canvio Ready</b> ★											
	STANDARD TOSHIBA	Two-toned matte and gloss finish	HDP340EK3CA	4 TB	USB 3.2 Gen 1	Type-A	✓	✓ <sup>1</sup>	-	-	-
			HDP320EK3AA	2 TB							
			HDP310EK3AA	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. „PlayStation“ and „Xbox“ are registered trademarks or trademarks of Sony Interactive Entertainment Inc. and Microsoft Corporation respectively. 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.

# 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.

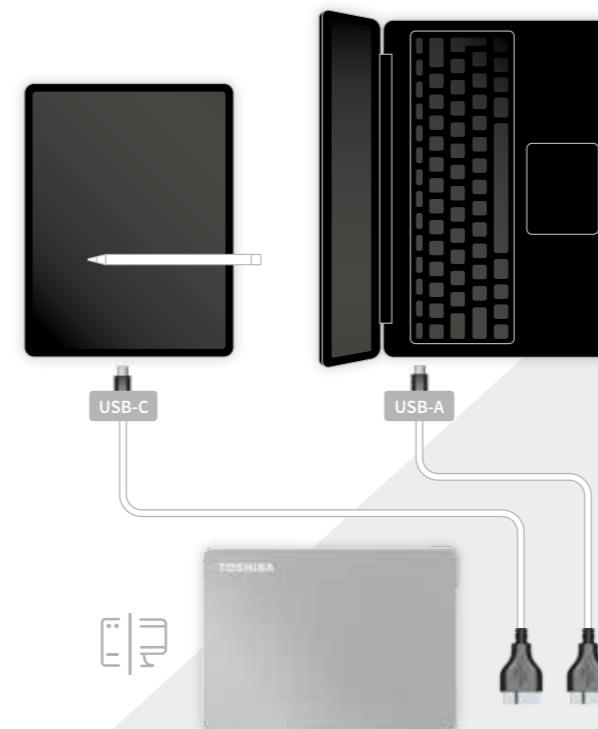


24-pin USB-C plug

# 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.



# Cross-device storage solution

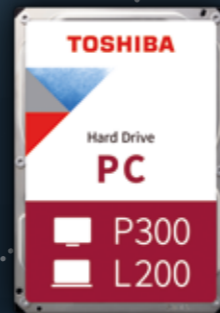
## Connection issues are a thing of the past.

Combining compatibility and portability, Toshiba's cross-device storage solution is built for your digital lifestyle. That's why the Canvio Flex is preformatted for Mac, Windows PC and tablets with USB-C® ports\*, allowing you to seamlessly access data and share between devices.

\* Compatibility may vary depending on user's hardware configuration and operating system. Please check device compatibility and connecting instructions by reviewing the applicable user manuals for such device. The latest information can be viewed online at [https://www.canvio.jp/en/compati/hdd/ot\\_ehdd/flex/index.htm](https://www.canvio.jp/en/compati/hdd/ot_ehdd/flex/index.htm)

# 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.



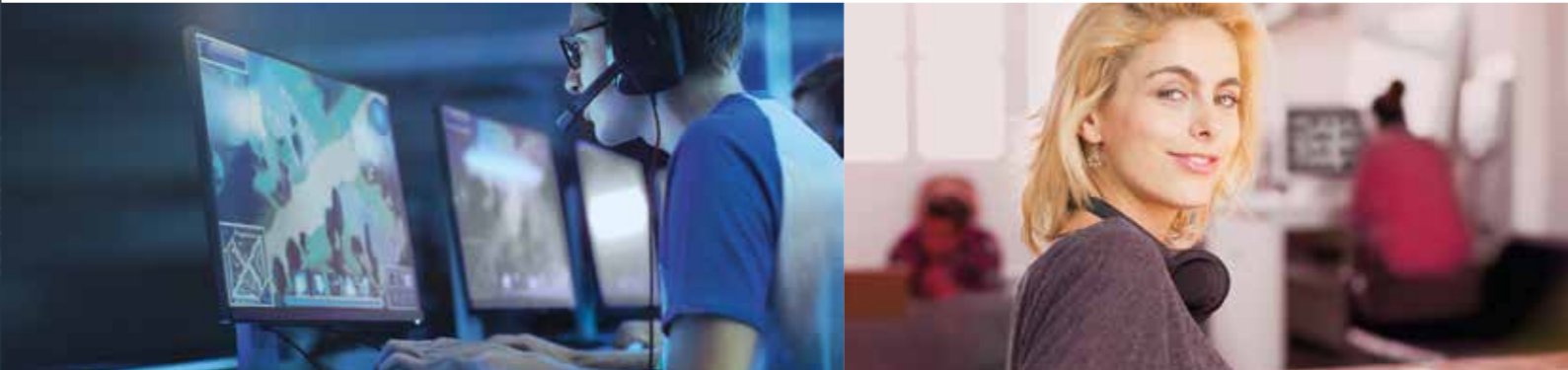
## NAS Hard Drives

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



### 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.



[View more](#)

SATA 3.5" SATA Hard Drive

RPM 7,200 rpm

512 MB (16 TB) buffer  
256 MB (14 | 12 | 10 | 8 | 6 TB) buffer  
128 MB (4 TB) buffer

Toshiba Stable Platter Technology

High reliability and enhanced real-time performance

High-endurance design

3-year warranty

Capacities

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

## S300 Pro

Capture every detail



### Toshiba's S300 Pro

The 3.5-inch internal hard disk is designed and tested for 24/7 reliable surveillance, built for speed, capacity, and longer content retention. Capture and analyse every frame from up to 64 video cameras in high resolution with the S300 Pro. Space is important to continually capture a history of video evidence over a period of time. With up to 10 TB, you get the capacity to record and play back the events in real-time in high resolution and with object identification and face recognition.



[View more](#)

SATA 3.5" SATA Hard Drive

RPM 7,200 rpm

256 MB buffer

Up to 64 cameras

24/7 24/7 operation

3-year warranty

Capacities

10 TB	8 TB	6 TB
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#### Use for:

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

## X300

Level up your drive performance



### 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 (16 TB) 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.



[View more](#)

SATA 3.5" SATA Hard Drive

RPM 7,200 rpm

512 MB (16 TB) buffer  
256 MB (14 | 12 | 10 | 8 | 6 TB) buffer  
128 MB (4 TB) buffer

Toshiba Stable Platter Technology

Toshiba Dynamic Cache Technology

Capacities

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

Always On, Always Watching



### 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 32 high-resolution surveillance video cameras simultaneously and up to 4 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.



[View more](#)

SATA 3.5" SATA Hard Drive

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

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

Up to 32 cameras

24/7 24/7 operation

3-year warranty

Capacities

4 TB	2 TB	1* TB
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#### Use for:

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

\* Availability: Dec. 2020



# P300

Performance meets reliability



### Toshiba's P300

The 3.5-inch internal hard drive delivers a high performance for professionals. With its dual-stage actuator, you can count on smooth, responsive computing. What's more, your data and media is secured with a ramp loading design, as well as a shock sensor.



[View more](#)

SATA 3.5" SATA Hard Drive

RPM 5,400 rpm (6 | 4 | 2 TB)  
7,200 rpm (3 | 2 | 1 TB | 500 GB)

128 MB (6 | 4 | 2 TB) buffer  
64 MB (3 | 2 | 1 TB | 500 GB) buffer

Capacities

6 4 3 2 1 500  
TB TB TB TB TB GB

#### Use for:

- Powerful Desktop Workstations
- All-in-one PCs
- Desktop PCs
- External enclosures
- Gaming computers

# L200

Take your laptop to the next level



### 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.



[View more](#)

SATA 2.5" SATA Hard Drive

RPM 5,400 rpm

128 MB (2 TB | 1 TB 7 mm) buffer  
8 MB (1 TB 9.5 mm | 500 GB 7 mm | 500 GB 9.5 mm) buffer

Toshiba Dynamic Cache Technology

Capacities

2 1 500  
TB TB GB

#### 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>											
	-	HDWG31GUZSVA	16 TB	SATA 6 Gbit/s	7,200	512 MB	26.1 mm	CMR	✓	✓	3
	HDWG21EEZSTA	HDWG21EUZSVA	14 TB			256 MB					
	HDWG21CEZSTA	HDWG21CUZSVA	12 TB			256 MB					
	HDWG11AEZSTA	HDWG11AUZSVA	10 TB			256 MB					
	HDWG180EZSTA	HDWG180UZSVA	8 TB			256 MB					
	HDWG160EZSTA	HDWG160UZSVA	6 TB			256 MB					
	HDWQ140EZSTA	HDWQ140UZSVA	4 TB			128 MB					
<b>X300 Performance Hard Drive 3.5"</b>											
	-	HDWR31GUZSVA	16 TB	SATA 6 Gbit/s	7,200	512 MB	26.1 mm	CMR	-	-	2
	HDWR21EEZSTA	HDWR21EUZSVA	14 TB			256 MB					
	HDWR21CEZSTA	HDWR21CUZSVA	12 TB			256 MB					
	HDWR11AEZSTA	HDWR11AUZSVA	10 TB			256 MB					
	HDWR180EZSTA	HDWR180UZSVA	8 TB			256 MB					
	HDWR160EZSTA	HDWR160UZSVA	6 TB			256 MB					
	HDWE140EZSTA	HDWE140UZSVA	4 TB			128 MB					
<b>S300 Pro Surveillance Hard Drive 3.5"</b>											
	-	HDWT31AUZSVA	10 TB	SATA 6 Gbit/s	7,200	256 MB	26.1 mm	CMR	✓	✓	3
	-	HDWT380UZSVA	8 TB			256 MB					
	-	HDWT360UZSVA	6 TB			256 MB					
<b>S300 Surveillance Hard Drive 3.5"</b>											
	-	HDWT140UZSVA	4 TB	SATA 6 Gbit/s	5,400	128 MB	26.1 mm	CMR	✓	-	3
	-	HDWT740UZSVA	4 TB			128 MB		SMR			
	-	HDWT720UZSVA	2 TB			128 MB		CMR			
	-	HDWV110UZSVA	1 TB			64 MB		CMR			
<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		CMR			
	HDWD130EZSTA	HDWD130UZSVA	3TB			7,200		64 MB			
	HDWD120EZSTA	HDWD120UZSVA	2TB			7,200		64 MB			
	-	HDWD220UZSVA	2TB			5,400		128 MB			
	HDWD110EZSTA	HDWD110UZSVA	1TB			7,200		64 MB			
	-	HDWD105UZSVA	500GB			7,200		64 MB			
<b>L200 Laptop PC Hard Drive 2.5"</b>											
	HDWL120EZSTA	HDWL120UZSVA	2 TB	SATA 6 Gbit/s	5,400	128 MB	9.5 mm	SMR	-	-	2
	HDWL110EZSTA	HDWL110UZSVA	1 TB			128 MB					
	-	HDWJ110UZSVA	1 TB	SATA 3 Gbit/s	5,400	8 MB	9.5 mm	CMR	-	-	2
	-	HDWJ105UZSVA	500 GB			8 MB					
	-	HDWK105UZSVA	500 GB			8 MB					



## AL Series

Enterprise Performance HDD



**Use for:**

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

- Low latency
- Persistent Write Cache Technology
- Unlimited workload
- Recording Technology: CMR
- Flexibility in block size
- Optional: Self-Encryption, Instant Erase
- 24/7 operation
- 5-year warranty



View more

**AL Series**

High performance storage for mission-critical applications, such as Tier 1 enterprise servers hosting transaction oriented applications.

	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



**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

- Persistent Write Cache Technology
- 550 TB/year workload
- Recording Technology: CMR
- Flexibility in block size
- Optional: Self-Encryption, Instant Erase
- 24/7 operation
- 5-year warranty



View more

**MG Series**

Capacity-optimized enterprise storage for external networked storage arrays, enterprise backup and restore infrastructure, and access intensive bulk-storage systems and applications.

	MG04		MG06	MG07	MG08		
Capacity (TB)	1	2   4   6	6   8   10	12   14	4	6   8	16
I/F speed	SAS12 Gbit/s						
	SATA 6 Gbit/s						
RPM	7,200						
Cache	128 MB		256 MB		512 MB		
Sector length	512n	512e, 4Kn, 512n	512e, 4Kn		512e, 512n	512e, 4Kn	
MTTF	1.4 mill. hrs.		2.5 mill. hrs.		2 mill. hrs.		2.5 mill. hrs.
Sealed	Air			Helium	Air		Helium

# Technical data



**AL Series**

**Enterprise Performance HDD**

Model Number	Specification								Performance				Reliability					
	Form-factor	Fill Gas	Capacity (GB)	Block Size (Byte)	Spindle Speed (RPM)	Buffer Size (MiByte)	Interface	Security Options	Average Latency (ms)	Average Seek Time		Data Rate (sustained) (MB/s)	Operating Power (W) typ.	MTTF (hrs)	Unrecoverable Error Rate	Duty	Rated Workload (TB/year)	Warranty (years)
										(ms) read	(ms) write							
<b>HIGHEST PERFORMANCE HDD (15K RPM) FOR SERVERS – BUSINESS DATABASE, ONLINE TRANSACTION, HIGH PERFORMANCE COMPUTING</b>																		
AL14SXB30EN	2.5"	Air	300	512n	15,000	128	SAS 12 Gbit/s	SIE/SED	2.0	2.95	3.25	273	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	2.0	2.95	3.25	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	2.0	2.95	3.25	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	300	512n	10,500	128	SAS 12 Gbit/s	SIE/SED	2.86	4.2	4.6	236	6.5	2.0 mill.	1 in 10 <sup>16</sup>	24/7	unlimited	5
AL15SEB060N			600									245	7.0					
AL15SEB090N			900										7.0					
AL15SEB120N			1,200	8.1														
AL15SEB06EQ			600	512e	10,500	128	SAS 12 Gbit/s	SIE/SED	2.86	4.2	4.6	273	6.5	2.0 mill.	1 in 10 <sup>16</sup>	24/7	unlimited	5
AL15SEB09EQ			900										7.0					
AL15SEB12EQ			1,200										7.0					
AL15SEB18EQ			1,800	8.1														
AL15SEB24EQ			2,400	8.7														
AL15SEB06EP			600	4Kn	10,500	128	SAS 12 Gbit/s	SIE/SED	2.86	4.2	4.6	273	6.5	2.0 mill.	1 in 10 <sup>16</sup>	24/7	unlimited	5
AL15SEB09EP			900										7.0					
AL15SEB12EP			1,200										7.0					
AL15SEB18EP			1,800	8.1														
AL15SEB24EP			2,400	8.7														

**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

Model Number	Specification								Performance					Reliability				
	Form-factor	Fill Gas	Capacity (GB)	Block Size (Byte)	Spindle Speed (RPM)	Buffer Size (MiByte)	Interface	Security Options	Average Latency (ms)	Average Seek Time		Data Rate (sustained) (MB/s)	Operating Power (W) typ.	MTTF (hrs)	Unrecoverable Error Rate	Duty	Rated Workload (TB/year)	Warranty (years)
										(ms) read	(ms) write							
<b>ENTERPRISE CAPACITY HDD WITH SAS 12 GBIT/S INTERFACE – BUSINESS CRITICAL STORAGES WITH LARGE CAPACITY</b>																		
MG04SCA20EN	3.5"	Air	2,000	512n	7,200	128	SAS 12 Gbit/s	SIE	4.2	8.5	9.5	204	11.8	1.4 mill.	1 in 10 <sup>15</sup>	24/7	550	5
MG04SCA40EN			4,000															
MG08SDA400N			4,000															
MG04SCA20EE			2,000															
MG04SCA40EE			4,000															
MG08SDA400E			4,000															
MG04SCA60EE			6,000															
MG06SCA600E			6,000															
MG08SDA600E		6,000																
MG06SCA800E		8,000																
MG08SDA800E		8,000																
MG06SCA10TE		10,000																
MG07SCA12TE		12,000																
MG07SCA14TE		14,000																
MG08SCA16TE		16,000																
MG04SCA20EA		3.5"	Air	2,000	4Kn	7,200	256	SAS 12 Gbit/s	SIE	4.2	8.5	9.5	215	11.8	1.4 mill.	1 in 10 <sup>15</sup>	24/7	550
MG04SCA40EA	4,000																	
MG04SCA60EA	6,000																	
MG06SCA600A	6,000																	
MG08SDA600A	6,000																	
MG06SCA800A	8,000																	
MG08SDA800A	8,000																	
MG06SCA10TA	10,000																	
MG07SCA12TA	12,000																	
MG07SCA14TA	14,000																	
MG08SCA16TA	16,000																	
MG04SCA20EA	Helium		2,000	4Kn	7,200	256	SAS 12 Gbit/s	SIE/SED	4.2	8.5	9.5	215	11.8	1.4 mill.	1 in 10 <sup>15</sup>	24/7	550	5
MG04SCA40EA			4,000															
MG04SCA60EA			6,000															
MG06SCA600A			6,000															
MG08SDA600A			6,000															
MG06SCA800A		8,000																
MG08SDA800A		8,000																
MG06SCA10TA		10,000																
MG07SCA12TA	12,000																	
MG07SCA14TA	14,000																	
MG08SCA16TA	16,000																	
MG04SCA20EA	Helium	2,000	4Kn	7,200	256	SAS 12 Gbit/s	SIE/SED	4.2	8.5	9.5	215	11.8	1.4 mill.	1 in 10 <sup>15</sup>	24/7	550	5	
MG04SCA40EA		4,000																
MG04SCA60EA		6,000																
MG06SCA600A		6,000																
MG08SDA600A		6,000																
MG06SCA800A		8,000																
MG08SDA800A		8,000																
MG06SCA10TA		10,000																
MG07SCA12TA	12,000																	
MG07SCA14TA	14,000																	
MG08SCA16TA	16,000																	
<b>ENTERPRISE CAPACITY HDD WITH SATA 6 GBIT/S INTERFACE – MAINSTREAM SERVER AND STORAGE, HYPERSCALE- AND CLOUD STORAGE</b>																		
MG04ACA100N	3.5"	Air	1,000	512n	7,200	128	SATA 6 Gbit/s	SIE	4.2	8.5	9.5	204	11.3	1.4 mill.	1 in 10 <sup>15</sup>	24/7	550	5
MG04ACA200N			2,000															
MG04ACA400N			4,000															
MG08ADA400N			4,000															
MG04ACA200E			2,000															
MG04ACA400E			4,000															
MG08ADA400E			4,000															
MG04ACA600E			6,000															
MG06ACA600E		6,000																
MG08ADA600E		6,000																
MG06ACA800E		8,000																
MG08ADA800E		8,000																
MG06ACA10TE		10,000																
MG07ACA12TE		12,000																
MG07ACA14TE		14,000																
MG08ACA16TE		16,000																
MG04ACA200A	3.5"	Air	2,000	512e	7,200	128	SATA 6 Gbit/s	SIE	4.2	8.5	9.5	184	11.3	1.4 mill.	1 in 10 <sup>15</sup>	24/7	550	5
MG04ACA400A			4,000															
MG04ACA600A			6,000															
MG06ACA600A			6,000															
MG08ADA600A			6,000															
MG06ACA800A			8,000															
MG08ADA800A			8,000															
MG06ACA10TA			10,000															
MG07ACA12TA		12,000																
MG07ACA14TA		14,000																
MG08ACA16TA		16,000																
MG04ACA200A		Helium	2,000	4Kn	7,200	128	SATA 6 Gbit/s	SIE/SED	4.2	8.5	9.5	184	11.3	1.4 mill.	1 in 10 <sup>15</sup>	24/7	550	5
MG04ACA400A			4,000															
MG04ACA600A			6,000															
MG06ACA600A			6,000															
MG08ADA600A			6,000															
MG06ACA800A	8,000																	
MG08ADA800A	8,000																	
MG06ACA10TA	10,000																	
MG07ACA12TA	12,000																	
MG07ACA14TA	14,000																	
MG08ACA16TA	16,000																	



MG Series

Enterprise Capacity HDD

# TOSHIBA

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