



# X300 Pro Performance Hard Drives

### Capacity to Create. Built to Perform

Toshiba X300 Pro Performace Hard Drive, built for high-end workstations and multimedia systems, can support high intensity workloads up to 300 TB/year with increased reliability of up to MTTF/MTBF 1.0 million hours and room up to 22 TB of storage capacity.

Optimized to handle high-end graphics and videos, the X300 Pro delivers a fast 7200 rpm rotational speed and large cache size to help shorten response



## Use for

- Professional desktop workstations
- Multimedia design workstations
- High-end gaming computers
- High workload performance PC

### **Top Features**

- Workload up to 300 TB/year
- MTTF/MTBF 1.0 million hours
- 7200 rpm speed with up to 512 MiB buffer
- CMR technology
- 3.5-inch Form Factor

## **Capacities**

22	20	18	16	14
ТВ	ТВ	ТВ	ТВ	TE

## **TOSHIBA**





## Performance Hard Drives

Capacity *1		22 TB	20 TB	18 TB	16 TB	14 TB	12 TB		
Parts Number		HDWR62CUZSVB	HDWR62AUZSVB	HDWR51JUZSVB	HDWR51GUZSVB	HDWR51EUZSVB	HDWR51CUZSVE		
Basic Specifications									
Recording Technology		CMR							
Interface				SATA 6.	0 Gbit/s				
Mechanical Design		He							
Form Factor *2		3.5-inch							
Sector Size		512e							
Shock Sensor		yes							
Performances									
Rotation Speed		7200 rpm							
Buffer Size *3				512	MiB				
Reliability									
MTTF / MTBF *4		1 000 000 hours							
Jnrecoverable Error I	Rate	1 per 10E15 1 per 10E14							
Maximum rated workload *5		300 TB/year							
Load/Unload cycles				300 000	0 times				
Power Requirements	s								
Supply Voltage		12 VDC ±10 % 5 VDC +10 /-7 %							
Power Consumption	Operating	8.	02 W	7.4	8 W	7.38 W	6.85 W		
ower consumption	Active Idle	4.35 W	4.41 W	4.1-	4 W	3.77 W	3.3 W		
nvironmental									
emperature	Operating	5 to 60 °C (Surface)							
emperature	Non-operating	-40 to 70 °C							
/ibration	Operating	$7.35  \text{m/s}^2  \{0.75  \text{G}\}  (5  \text{to}  300  \text{Hz})$							
	Non-operating	29.4 m/s² {3.0 G} (5 to 500 Hz)							
Shock	Operating	490 m/s² {50 G	(2 ms duration)	686 m/s² {70 G} (2 ms duration)					
SHOCK	Non-operating	1960 m/s² {200	G} (2 ms duration)	$2450 \text{ m/s}^2 \{250 \text{ G}\} (2 \text{ ms duration})$					
Acoustics (Active Idle)		20 dB (Typ.)							
Physical									
Dimensions		147 (L) x 101.85 (W) x 26.1 (H) mm (Max)							
Weight			720	g (Max)		705 g (Max)	690 g (Max)		

<sup>\*1</sup> Definition of capacity: One terabyte (TB) = one trillion bytes, but storage capacity actually available may vary depending on operating environment and formatting. 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.

2 "3.5-inch" means the form factor of HDDs. They do not indicate drive's physical size.

3 A mebibyte (MiB) means 1 048 576 bytes.

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<sup>\*5</sup> Workload is a measure of the data throughput of the year, and it is defined as the amount of data written, read or verified by commands from the host system.

<sup>•</sup> Product image may represent a design model.

Before creating and producing designs and using, customers must also refer to and comply with the latest versions of all relevant information of this document and the instructions for the application that Product will be used with or for.

## TOSHIBA



## Performance Hard Drives

Capacity *1		10 TB	8 TB	8 TB	6 TB	6 TB	4 TB	4 TB
Parts Number		HDWR71AUZSVB	HDWR780UZSVB	HDWR480UZSVB	HDWR760UZSVB	HDWR460UZSVB	HDWR740UZSVB	HDWR440UZSVE
Basic Specifications			'	'				
Recording Technolog	у				CMR			
Interface					SATA 6.0 Gbit/s			
Mechanical Design					Air			
Form Factor *2					3.5-inch			
ector Size					512e			
hock Sensor					yes			
erformances								
otation Speed					7200 rpm			
Buffer Size *3		512	MiB	256 MiB	512 MiB	256 MiB	512 MiB	256 MiB
eliability								
TTF/MTBF*4					1 000 000 hours			
Unrecoverable Error Rate		1 per	10E15	1 per 10E14	1 per 10E15	1 per 10E14	1 per 10E15	1 per 10E14
Maximum rated workload *5		300 T	B/year	-	300 TB/year	-	300 TB/year	-
Load/Unload cycles		600 00	00 times	300 000 times	600 000 times	300 000 times	600 000 times	300 000 times
ower Requirements	i							
Supply Voltage		12 VDC ±10 % 5 VDC +10 /-7 %						
C	Operating	9.07 W	8.19 W	8.7 W	7.43 W	7.97 W	6.75 W	7.17 W
ower Consumption	Active Idle	5.74 W	4.92 W	5.62 W	4.14 W	4.89 W	3.49 W	4.07 W
nvironmental								
mporaturo	Operating	5 to 60 °C (Surface)						
emperature	Non-operating	-40 to 70 °C						
ibration	Operating	7.35 m/s² {0.75 G} (5 to 300 Hz) 2.45 m/s² {0.25 G} (300 to 500 Hz)						
	Non-operating	29.4 m/s² {3.0 G} (5 to 500 Hz)						
	Operating	686 m/s² {70 G} (2 ms duration)						
hock	Non-operating	2450 m/s² {250 G} (2 ms duration) 2940 m/s² {300 (2 ms duration)						
Acoustics (Active Idle)		34 dE	З (Тур.)	31 dB (Typ.)	34 dB (Typ.)	31 dB (Typ.)	34 dB (Typ.)	31 dB (Typ.)
hysical								
Dimensions		147 (L) x 101.85 (W) x 26.1 (H) mm (Max)						
Weight		755 g (Max)	730 g (Max)	720 g (Max)	710 g (Max)	700 g (Max)	690 g (Max)	693 g (Max)

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 <sup>2 3.5-</sup>inch means the form factor of HDDs. They do not indicate drive's physical size.
 3 A mebibyte (MiB) means 1 048 576 bytes.
 4 MTTF/MTBF (Mean Time to Failure/Mean Time Between Failures) 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/MTBF.
 5 Workload is a measure of the data throughput of the year, and it is defined as the amount of data written, read or verified by commands from the host system.

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