

4/10/2018

**HDWx1xxXZSTA**

**Toshiba X300 Performance Internal Hard Drive (Retail Packaging)**

**Description**

**Extreme Performance and Reliability for the Pro and Gamers**

The Toshiba X300 Performance and Gaming Hard Drive has the technology to take your gaming to the extreme. The last thing gamers want is lag. With high performance in mind, the X300 Performance and Gaming Hard Drive offers 7200 RPM and large cache size to keep you going in real-time. Since no one ever plays just one game, the X300 also has the capacity for your gaming library to grow. The combination of massive storage capacity and real-time performance will take your game to the next level.

Designed for a professional system, home media computer, or gaming PC, the X300 comes with data protection and drive stabilization technologies to help mitigate vibrations and improve tracking accuracy. All of which means more reliability than ever for backing up your digital content. Plus, the X300 features Toshiba's cache technology, optimizing cache allocation during read/write to provide high-level performance in real time.

Put the extreme performance, capacity, and reliability of the Toshiba X300 Performance and Gaming Hard Drive behind your game and graphics-intensive projects.

Use for<sup>2</sup>:

- Powerful desktop workstations
- All-in-one PCs
- Gaming computers
- Home media computers





For over 40 years Toshiba has been developing and manufacturing hard drives. Like all Toshiba products, the X300 3.5" Performance internal hard drive is designed from the ground up with your needs in mind, then tested again and again for reliability. That's why it comes with a solid two-year standard limited warranty<sup>7</sup> that gives you peace of mind.

For more information on Toshiba's entire line of consumer storage solutions visit:  
<http://storage.toshiba.com/consumer-hdd>.

### Product Features<sup>3</sup>

- **High performance designed for the Pro**
  - 7,200RPM speed with large cache sizes up to 256MB deliver extreme performance that gamers and creative professionals demand.
- **Massive storage capacity**
  - Impressive high storage capacity up to 10TB<sup>1</sup> to accommodate your large multimedia files and expanding gaming library.
- **Reliable data integrity**
  - Advanced Format (AF) technology helps improve formatting efficiency and the reliability of recorded data with stronger error correction algorithms.
  - Dual Stage Actuator design enables high-precision head positioning delivering accurate data tracking.
- **Toshiba Cache Technology\***
  - On-board cache algorithm and buffer management optimize cache allocation between read and write cycles for improved real-time drive performance.
- **Data Protection Technology**
  - Ramp loading technology reduces wear to the recording head and media for improved drive reliability. Built-in shock sensors detect impact, shielding adjacent track data.
- **Drive Stabilization Technology**
  - Secured motor shaft at both ends helps reduce system-induced vibrations, stabilizing the platters for improved tracking accuracy and performance during read and write operations.
- **Native Command Queuing (NCQ) support**
  - Optimizes the order in which received read and write commands are executed, resulting in increased performance and reduced mechanical workload from the drive.
- **Excellent for Gaming / Graphic Design / Animation**
- **2-Year Standard Limited Warranty<sup>7</sup>**

\* Toshiba Cache Technology is supported on the 8TB & 10TB model only.

Product Specifications	Product Image
<p>Specification<sup>3</sup></p> <ul style="list-style-type: none"> <li>Capacity<sup>1</sup>: 4TB/5TB/6TB/8TB/10TB</li> <li>Interface: Serial ATA 3.0 (SATA)</li> <li>Interface speed: Up to 6 Gbit/s</li> <li>Form Factor<sup>10</sup>: 3.5 inch</li> <li>Rotational Speed: 7200 RPM</li> <li>Cache size: <ul style="list-style-type: none"> <li>10TB: 256 MB</li> <li>4TB/5TB/6TB/8TB: 128MB</li> </ul> </li> <li>Bottom Mounting Holes Configuration*: <ul style="list-style-type: none"> <li>4TB/5TB: Type 2</li> <li>6TB/8TB/10TB: Type 1</li> </ul> </li> <li>Operating Temperature: 5°C to 60°C</li> <li>Supply Voltage: <ul style="list-style-type: none"> <li>10TB: 5 V DC +10 / -5 %; 12 V DC ±10 %</li> <li>8TB: 5 V DC +6-5 %; 12 V DC ±10 %</li> <li>4/5/6TB: 5 V DC ±5 % ; 12 V DC ±5 %</li> </ul> </li> <li>Non-recoverable Error Rate: 1 per 10E14</li> </ul> <p>Content</p> <ul style="list-style-type: none"> <li>Toshiba X300 Performance Internal Hard Drive</li> </ul> <div data-bbox="298 972 643 1444">  <p>The image shows the retail box for the Toshiba X300 Performance Desktop PC Hard Drive. The box is black and red, featuring the Toshiba logo, the model name 'X300', and the capacity '10TB'. It also mentions '7200 RPM' and '256MB cache'. The box includes a window showing the hard drive inside and text in both English and French: 'Performance Desktop PC / Performance PC de bureau' and '3.5-inch Hard Drive / Disque Dur de 3.5 pouces'. At the bottom, it says 'For Performance and Gaming Desktop PC / Pour PC de bureau Performance et de jeu'.</p> </div> <p>Retail package image example shown in 10TB model</p>	<div data-bbox="1000 147 1278 546">  <p>The image shows the top of a Toshiba Performance X300 10TB hard drive. The silver metal casing has a label with the Toshiba logo, 'Performance X300', '10TB', '7200rpm (256MB buffer)', and 'Hard Drive (HDD)'. It also includes a barcode and various certification logos.</p> </div> <p>Actual product image example shown in the 10TB model</p> <div data-bbox="954 646 1323 982">  <p>The image shows a perspective view of the hard drive with its top cover removed, revealing the internal platters and the actuator arm. The drive is black and has a standard 3.5-inch form factor.</p> </div> <p>Product image may represent a design model.</p> <div data-bbox="1003 1129 1253 1514">  <p>The image shows a silver-colored hard drive with a black label that reads 'TOSHIBA', 'Performance Hard Drive', and 'X300'. This appears to be a design model or a different version of the product, as it differs from the actual product shown in the other images.</p> </div> <p>Image does not represent actual product.</p>
<p>* Location of bottom mounting hole is different from product. For more information, please visit:  <a href="https://toshiba.semicon-storage.com/us/design-support/faq/storage-holes.html">https://toshiba.semicon-storage.com/us/design-support/faq/storage-holes.html</a></p>	

Part Set-up Information			
<b>Part Number:</b>	See below	<b>Product Dimensions:</b>	4" (W) X 1.03" (H) X 5.79" (L) {101.85 mm (W) X 26.1 mm (H) X 147 mm (L)}
<b>Product name:</b>	Toshiba X300 Performance Internal Hard Drive (Retail Packaging)	<b>Product weight:</b>	4TB/5TB: 25.4 oz {720 g} max 6TB/8TB/10TB: 27.2 oz {770 g} max
<b>UPC code:</b>	See below	<b>Package dimensions:</b>	7.4" (H) x 5.3" (W) x 2.4" (D) {189.0 mm (H) x 136.0 mm (W) x 60.0 mm (D)}
<b>Master carton UPC:</b>	See below	<b>Package weight:</b>	32.3 oz {915 g} max
<b>Product category:</b>	Internal Storage; Desktop PC Upgrades; Performance Hard Drive, Gaming Hard Drive	<b>Packaging Material:</b>	Retail Box, 300P CCWB+E Flute (White)
<b>Warranty<sup>7</sup>:</b>	Two (2) Year Limited Warranty	<b>Master carton quantity:</b>	4 pcs per carton
<b>Availability Date</b>	May 2018	<b>Master carton dimensions:</b>	10.4" x 5.9" x 8.3" {265 mm x 150 mm x 210 mm}
<b>Embargo Date:</b>	14 days after availability date	<b>Master carton weight:</b>	8.6 lb {3914 g} max
<b>Country of origin:</b>	Made in Philippines	<b>Units per pallet:</b>	480 pcs
<b>Package Contents:</b>	Toshiba X300 Performance Internal Hard Drive	<b>Layers per pallet:</b>	5 layers
<b>Applications<sup>2</sup>:</b>	<ul style="list-style-type: none"> <li>• Powerful desktop workstations</li> <li>• All-in-one PCs</li> <li>• Gaming computers</li> <li>• Home media computers</li> </ul>	<b>Units per Layer</b>	96 pcs
<b>Environmental:</b>	RoHS Compliant <sup>9</sup>	<b>Minimum Order Qty:</b>	4 pcs

Part Number	Capacity <sup>1</sup>	RPM	Cache (MB)	UPC	Master Carton UPC
HDWE140XZSTA	4TB	7200	128	889661023999	10889661023996
HDWE150XZSTA	5TB	7200	128	889661024019	10889661024016
HDWE160XZSTA	6TB	7200	128	889661024026	10889661024023
HDWF180XZSTA	8TB	7200	128	889661174103	10889661174100
HDWR11AXZSTA	10TB	7200	256	723844000295	10723844000292

<sup>1</sup> One Gigabyte (1GB) means  $10^9 = 1,000,000,000$  bytes and One Terabyte (1TB) means  $10^{12} = 1,000,000,000,000$  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 and  $1\text{TB} = 2^{40} = 1,099,511,627,776$  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 other factors.

<sup>2</sup> Compatibility may vary depending on user's hardware configuration and operating system.

<sup>3</sup> Product specifications, configurations, colors, components and features are subject to change without notice.

<sup>4</sup> The maximum sustained data rate and interface speed may be restricted to the response speed of host system and by transmission characteristics. Read and write speed may vary depending on the host device, read and write conditions, and file size.

<sup>5</sup> Annual Workload Rating: HDDs keep track of various drive usage such as power on hours, lifetime writes and lifetime reads from the host computer. With this data we calculate an Annualized Workload Rate, under 40 deg. C ambient environments, Annualized Workload Rate = (Lifetime Writes + Lifetime Reads) \* (8760 / Lifetime Power On Hours) in case Power On time is 8760h or longer. Otherwise (i.e. Power On time is shorter than 8760h), Annualized Workload Rate = (Lifetime Writes + Lifetime Reads) Each drive is designed to perform up to the Annualized Workload Rate stated, after which the drive may be expected to decline. The Annualized Workload Rate in no way alters the warranty policy for such drive.

<sup>6</sup> As for "Drive Bays Supported", please contact your Solutions Provider because the compatibility with the host device will vary based on the system.

<sup>7</sup> Limited Warranty (Americas), full terms and conditions available at <http://storage.toshiba.com/consumer-hdd/support/warranty-info>

<sup>8</sup> 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.

<sup>9</sup> Toshiba Storage & Electronic Devices Solutions Company defines "RoHS-Compatible" products as products that either (i) contain no more than a maximum concentration value of 0.1% by weight in Homogeneous Materials for lead, mercury, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) and of 0.01% by weight in Homogeneous Materials for cadmium; or (ii) fall within any of the application exemptions set forth in the Annex to the RoHS Directive (Directive 2011/65/EC of the European Parliament and of the Council of 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment). "Homogeneous Material" means a material of uniform composition that cannot be mechanically disjointed (meaning separated, in principle, by mechanical actions such as unscrewing, cutting, crushing, grinding and/or abrasive processes) into different materials. Examples of "Homogeneous Materials" would be individual types of plastics, ceramics, glass, metals, alloys, paper, board, resins and coatings.

<sup>10</sup> 2.5-inch" and "3.5-inch" mean the form factor of HDDs. They do not indicate drive's physical size.

Information in this document, including product prices and specifications, content of services and contact information, is current and believed to be accurate on the date of the announcement but is subject to change without prior notice.