TOSHIBA
Leading Innovation

End of Sales

HDD

# MQ03ABBxxx SERIES

## LARGE CAPACITY HDD FOR EXTERNAL STORAGE

Product image may represent a design model.

## KEY FEATURES

- Delivers Massive Storage Capacity in 2.5-inch Form Factor for Space Constrained Applications
- Available with 2 and 3 TB Capacity
- 5,400 rpm
- SATA 3 (Up to 6.0 Gbit/s) with SATA Power Save
- Advanced Format 512e
- MTTF of 600,000 hours
- RoHS Compatible, Halogen-Free and Antimony-Free

## APPLICATIONS

- External Personal Storage

## MAIN SPECIFICATIONS

| Model Number | | MQ03ABB300 | MQ03ABB200 |
|---|---|---|---|
| Interface | | Serial ATA 3.0 / ATA-8 | |
| Formatted Capacity | | 3 TB | 2 TB |
| Performance | Interface Speed | 6.0 Gbit/s, 3.0 Gbit/s, 1.5 Gbit/s | |
| | Rotation Speed | 5,400 rpm | |
| | Average Latency Time | 5.56 ms | |
| | Buffer Size | 16 MiB | |
| Logical Data Block Length | MQ03ABBxxx | HOST: 512 B, DISK: 4,096 B | |
| Supply Voltage | Allowable Voltage | 5 V ± 5% | |
| Power Consumption | Read / Write | 1.70 W Typ. | |
| | Low Power Idle | 0.70 W Typ. | |
| Energy Consumption Efficiency/ Category Name | | 0.000234 / J | 0.000350 / H |
| Acoustics (Sound Power) | Idle | 25 dB | |
| | Seek | 25 dB | |

## RELIABILITY

| Model Number | MQ03ABBxxx |
|---|---|
| MTTF | 600,000 hours |
| Non-recoverable Error Rate | 1 error per $10^{14}$ bits read |

## MECHANICAL SPECIFICATIONS

| Model Number | MQ03ABBxxx |
|---|---|
| Height | 15.0 mm |
| Width | 69.85 mm |
| Length | 100.0 mm |
| Weight | 180 g Max. |

## ENVIRONMENTAL LIMITS

| Item | | Specification |
|---|---|---|
| Temperature | Operating | 0 °C to 60 °C |
| | Non-Operating | - 40 °C to 65 °C |
| Humidity | Operating | 8 % to 90 % R.H. |
| | Non-Operating | 8 % to 90 % R.H. |
| Shock | Operating | 2,940 $m/s^2$ { 300 G } ( 2 ms half sine wave ) |
| | Non-Operating | 5,880 $m/s^2$ { 600 G } ( 1 ms half sine wave ) |
| Vibration | Operating | 9.8 $m/s^2$ {1.0 G} (5 to 500Hz) |
| | Non-Operating | 49 $m/s^2$ {5.0 G} (15 to 500Hz) |
| Altitude | Operating | - 300 m to 3,000 m |
| | Non-Operating | - 300 m to 12,000 m |
| Environmental Compliance | | RoHS Compatible |

Product image may represent a design model.

Definition of capacity: Toshiba defines a megabyte (MB) as 1,000,000 bytes, a gigabyte (GB) as 1,000,000,000 bytes and a terabyte (TB) as 1,000,000,000,000 bytes. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB = $2^{30}$ = 1,073,741,824 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.

A kibibyte (KiB) means $2^{10}$, or 1,024 bytes, a mebibyte (MiB) means $2^{20}$, or 1,048,576 bytes, and a gibibyte (GiB) means $2^{30}$, or 1,073,471,824 bytes.

Toshiba Semiconductor & Storage Products 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.

Toshiba Semiconductor & Storage Products Company defines halogen-free and antimony-free SSD and HDD products as those meeting all of the following requirements: (a) containing bromine (Br) and chlorine (Cl) at no more than 900 parts per million (ppm) by weight for each element, and containing bromine and chlorine in an aggregate amount not exceeding 1500 ppm by weight; and (b) containing no more than 1000 ppm antimony (Sb) by weight. For the avoidance of doubt, Halogen-Free/Antimony-Free SSD or HDD products may not be entirely free of bromine, chlorine, or antimony, and may contain other element of the halogen family.

Read and write speed may vary depending on the host device, read and write conditions, and file size.

"2.5-inch" and "3.5-inch" mean the form factor of HDDs or SSDs. They do not indicate drive's physical size.

Energy Consumption Efficiency: Energy consumption efficiency is calculated based on power consumption divided by formatted capacity, as defined by Japanese law.