

5,400 RPM 1.8-Inch Hard Disk Drives

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Industry-leading capacity and performance coupled with the benefits of low power consumption and ruggedness



MK1633GSG
MK2533GSG
MK3233GSG

The Toshiba MKxx33GSG Series of 1.8-inch hard disk drives (HDDs) feature industry-leading capacity and performance coupled with the benefits of low power consumption and ruggedness in a compact storage solution.

Equipped with a high-performance 5,400 RPM rotational speed and 16MB buffer, the Serial ATA, MKxx33GSG family offers up to 320GB¹ of storage capacity and utilizes close to 25% less power than comparable 2.5-inch hard disk drives during seek operations.

Weighing only 62 grams and designed to withstand up to 1,500Gs of non-operating shock, these light weight and durable drives provide an ideal solution for today's demanding mobile applications. The small footprint and large storage capacity of the MKxx33GSG Series are well-suited for a variety of on-the-go computing needs, including laptop PCs, mini-notebooks, printers, and external add-on storage applications.

- 1.8-inch Footprint
- 5,400 RPM Spindle Speed
- Up to 320GB¹ of Capacity
- Disk Transfer Rates up to 830 Mb/sec
- 3 Gb/sec SATA
- 16MB Cache Buffer

Hard Drive

5,400 RPM 1.8-Inch Hard Disk Drives

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Series Overview

| | MK1633GSG | MK2533GSG | MK3233GSG |
|----------------------------|-------------------------|--------------------|--------------------|
| Drive Capacity | 160GB ¹ | 250GB ¹ | 320GB ¹ |
| Drive Interface | Serial ATA Revision 3.0 | | |
| Number of Platters (disks) | 1 | 2 | 2 |
| Number of Data Heads | 2 | 4 | 4 |
| RoHS Compliant | Yes | | |
| Transfer Rate to Host | 3 Gb/sec | | |

Performance

| | |
|---------------------|-----------|
| Track-to-track Seek | 3ms |
| Average Seek Time | 15ms |
| Rotational Speed | 5,400 RPM |
| Average Latency | 5.6ms |
| Buffer Size | 16MB |

Power Requirements

| | |
|-----------------------|---------------|
| Voltage | 3.3V (+/- 5%) |
| Spin up (start) Power | 2.5 watts |
| Seek Power | 1.3 watts |
| Read/Write Power | 1.3 watts |
| Low Power Idle | 0.40 watts |
| Standby Power | 0.18 watts |
| Sleep Power | 0.13 watts |

Physical Size

| | | | |
|----------------------------|---|----------------|----------------|
| Dimensions (W) x (D) x (H) | 54.0 mm (2.13") x 78.5 mm (3.0") x 8.0 mm (0.31") | | |
| Weight | 60 g (2.12 oz) | 62 g (2.19 oz) | 62 g (2.19 oz) |

Environmental

| | |
|---------------------------|--|
| Temp - Operating | 5° to 65°C (41° to 149°F) |
| Temp - Non-Operating | -40° to 65° C (-40° to 149°F) |
| Vibration - Operating | 9.6 m/s ² (2.0G) 15 to 500 Hz |
| Vibration - Non-Operating | 49 m/s ² (5.0G) 15 to 500 Hz |
| Shock - Operating | 4,900 m/s ² (500G) 2ms |
| Shock - Non-Operating | 14,700 m/s ² (1,500G) 1ms |

Acoustics

| | | | |
|------------------|--------|--------|--------|
| Acoustics (idle) | 16 dBA | 18 dBA | 18 dBA |
| Acoustics (seek) | 17 dBA | 19 dBA | 19 dBA |

Limited Warranty

| | |
|------------------|--------------------------------|
| Limited Warranty | 1 year (from date of purchase) |
|------------------|--------------------------------|

Visit us at: www.toshibastorage.com

¹One Gigabyte (1 GB) means 10⁹ = 1,000,000,000 bytes using powers of 10. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1 GB = 2³⁰ = 1,073,741,824 bytes, and therefore shows less storage capacity. Available storage capacity will also be less if the computer includes one or more pre-installed operating systems, pre-installed software applications, or media content. Actual formatted capacity may vary.

Subject to Change: While Toshiba has made every effort at the time of publication to ensure the accuracy of the information provided herein, product specifications, configurations, prices, system/component/options availability are all subject to change without notice.
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