

7,200 RPM 2.5-Inch Hard Disk Drives

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*Top-of-the-line performance,
low-power consumption and
field-proven durability*



MK1656GSY
MK2556GSY
MK3256GSY
MK5056GSY

Boosting performance by 13% over the previous generation, Toshiba's MKxx56GSY drive family of 7,200 RPM, 2.5-inch hard disk drives provide up to 500GB¹ of capacity storage while improving system and application responsiveness. Top-of-the-line performance, low-power consumption and field-proven durability make the MKxx56GSY Series well-suited for a wide variety of data-intensive mobile and stationary computing systems including consumer and commercial notebook PCs, Energy Star[®], tiny and all-in-one desktops, as well as graphic and image rendering workstations.

The MKxx56GSY continues Toshiba's initiative in environmentally-conscious solutions by decreasing or eliminating the use of certain toxic, hazardous or controversial chemicals in the drive. Toshiba's objective is to transition its entire line of hard disk drives to environmentally safer solutions by the end of 2009².

- Storage Capacity Up to 500GB¹
- 7,200 RPM Rotational Speed
- 16MB Buffer
- Durable and Reliable
- 600,000 MTTF Hours

Hard Drive

7,200 RPM

2.5-Inch Hard Disk Drives

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Series Overview

	MK1656GSY	MK2556GSY	MK3256GSY	MK5056GSY
Drive Capacity	160GB ¹	250GB ¹	320GB ¹	500GB ¹
Drive Interface	Serial-ATA Revision 2.6 / ATA-8			
Number of Platters (disks)	1	1	2	2
Number of Data Heads	2	2	3	4
Transfer Rate to Host	3 Gb/sec			

Performance

Track-to-track Seek	1ms
Average Seek Time	11ms (Read), 12ms (Write)
Rotational Speed	7,200 RPM
Buffer Size	16MB

Power Requirements

Voltage	5V (+/-5%)
Spin up (start) Power	5.5 amps
Seek Power	2.3 watts
Read/Write Power	2.1 watts
Active Idle Power	1.2 watts
Low Power Idle	1.0 watts
Standby Power	0.16 watts
Sleep Power	0.13 watts

Physical Size

Dimensions (W) x (D) x (H)	69.85 mm (2.75") x 100 mm (3.94") x 9.5 mm (0.37")			
Weight	98 g (max)	98 g (max)	115 g (max)	115 g (max)

Environmental

Temp - Operating	5° to 55°C (41° to 131°F)
Temp - Non-Operating	-40° to 60°C (-40° to 140°F)
Vibration - Operating	9.8 m/s ² (1.0G) 5 to 500 Hz
Vibration - Non-Operating	49 m/s ² (5.0G) 15 to 500 Hz
Shock - Operating	3,185 m/s ² (325G) 2ms
Shock - Non-Operating	8,820 m/s ² (900G) 1ms

Acoustics

Acoustics (idle)	23 dBA	23 dBA	25 dBA	25 dBA
Acoustics (seek)	23 dBA	23 dBA	25 dBA	25 dBA

Limited Warranty

Limited Warranty	1 year (from date of purchase)
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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.

²Concentrations of chlorine and bromine are below 900 ppm for each substance, surpassing the IEC61249-2-21:2003 criteria set for printed circuit boards by the International Electrotechnical Commission (IEC), in applying the criteria to all components in the HDD. IEC is the leading global organization that defines internationally-recognized standards for electrical, electronic and associated technologies.

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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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