SLC NAND
2.5-Inch SAS Solid State Drives

Engineered to deliver performance, endurance, and reliability for business critical applications..

MK1001GRZB
MK2001GRZB
MK4001GRZB

At the forefront of leading-edge manufacturing technology, Toshiba offers enterprise-class solid state drives (SSDs) designed to support the market's demand for higher performance, endurance, and lower power consumption in business critical, enterprise applications.

The MKx001GRZB enterprise-class SSD represents the highest level of a tiered storage architecture that enables organizations to effectively tune the performance, capacity, and reliability of their storage environments. The MKx001GRZB is offered in capacities of 100GB, 200GB, and 400GB[1] and designed for compatibility and ease of integration into new or existing tier-0 enterprise storage systems, including servers, direct-attached storage, and network-attached storage.

The new 2.5-inch small form factor drives utilize the latest 32 nanometer (nm) enterprise grade single-level cell (SLC) NAND flash memory and 6Gb/s Serial Attached SCSI (SAS) interface. The Toshiba SSD delivers performance that outpaces competing enterprise-class SSDs, with random sustained 90,000 read and 17,000 write IOPS[2] and sequential sustained 510MB/s read and 230MB/s write throughput. Combined with a low power requirement of only 6.5 watts at operation, the Toshiba SSD also delivers an industry-leading power efficiency rating of 13,800 IOPS/watt.

- 32 nm Enterprise Grade Single-level Cell (SLC) NAND Flash Memory

- 6Gb/s Serial Attached SCSI (SAS) Interface

- Up to 400GB[1] of Storage Capacity

- Random Sustained 90,000 Read and 17,000 Write IOPS[2]

- Sequential Sustained 510MB/s Read and 230MB/s Write Throughput

Hard Drive

Series Overview

	MK1001GRZB	MK2001GRZB	MK4001GRZB
User Capacity	100GB[1]	200GB[1]	400GB[1]
Physical Capacity	128GB	256GB	512GB
Drive Interface	Serial Attached SCSI (SAS-2)		
Sector Size	528B	520B	512B
NAND Technology	32nm SLC		
Transfer Rate to Host	6 Gb/s		

Performance

Sequential Read	510MB, Q=4
Sequential Write	230MB, Q=4
4KB Random Read	90,000 IOPS, Q=16
4KB Random Write	17,000 IOPS, Q=16
Product Life	5 Years

Reliability

	MK1001GRZB	MK2001GRZB	MK4001GRZB
Total Storage Capacity of Data Written[2]	8PB[1]	No Limit/Product Life	No Limit/Product Life
Availability (hrs/day x days/wk)	24 x 7		

Power Requirements

Voltage	5V (+/- 5%)
Power Consumption (Active)	6.5 watts (+12V / +5V)
Power Consumption (Efficiency)	up to 13,800 IOPS / watt

Physical Size

Dimensions (W) x (D) x (H)	69.85 mm (2.75") x 100 mm (3.94") x 15.4 mm (0.59")
Weight	152 g (5.36 oz)

Environmental

Temp - Operating	0° to 55°C (32° to 131°F)
Temp - Non-Operating	-40° to 70°C (-40° to 158°F)
Vibration - Operating	9.8 m/s²
Vibration - Non-Operating	49 m/s²
Shock - Operating	1,000G (0.5ms, ½ sine)
Shock - Non-Operating	1,000G (0.5ms, ½ sine)

Limited Warranty

Limited Warranty	5 years (from date of purchase)

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