



# BARRACUDA

COMPUTE



2.5 HDD DATA SHEET

Amazing Versatility.  
Unmatched Dependability.

Seagate brings over 20 years of trusted performance and reliability to the Seagate® BarraCuda® 2.5-inch HDDs — now available in capacities up to 5 TB.



## Best-Fit Applications

- Laptops
- Mobile storage
- External storage systems
- All-in-one PCs
- Ultra-slim desktop PCs

## Key Advantages

**Broadest 2.5-inch hard drive portfolio** with up to 5 TB capacity and both 7 mm and 15 mm form factors suitable for a variety of compute applications.

**Thinnest and lightest 2.5-inch hard drive** with up to 2 TB storage in a 7 mm z-height, providing seamless upgrades of thin and light laptops and smaller form factor systems.

**Fast data rates of up to 140 MB/s** enables superior PC end-user experience and snappier file transfers.

2.5-inch, 15 mm z-height hard drives provide 3 TB to 5 TB in capacity, offering **the highest-capacity 2.5-inch hard drives** available for external or all-in-one storage.

**15 mm z-height enables slimmer all-in-one desktop PC drives** while helping reduce system heat generation and vibration.

**Low startup current** configurations for 3 TB to 5 TB drives enable **use in legacy low-current systems** like USB-2 external boxes, while simultaneously lowering power consumption.

5 TB drives can store more than **1.25 million songs and 600 hours of HD video.**<sup>1</sup>

<sup>1</sup> Quantitative usage examples for 5 TB capacity drive



| Specifications                                 | 5 TB <sup>1</sup>      | 4 TB <sup>1</sup>      | 3 TB <sup>1</sup>      | 2 TB <sup>1</sup>      | 1 TB <sup>1</sup>      | 500 GB <sup>1</sup>    |
|------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model Numbers                                  | ST5000LM000            | ST4000LM024            | ST3000LM024            | ST2000LM015            | ST1000LM048            | ST500LM030             |
| Bytes per Sector (logical/physical)            | 512/4,096              | 512/4,096              | 512/4,096              | 512/4,096              | 512/4,096              | 512/4,096              |
| Performance                                    |                        |                        |                        |                        |                        |                        |
| Interface                                      | SATA 6 Gb/s            | SATA 6 Gb/s            | SATA 6 Gb/s            | SATA 6 Gb/s            | SATA 6 Gb/s            | SATA 6 Gb/s            |
| Data Transfer Rate (MB/s)                      | Up to 140              | Up to 140              | Up to 140              | Up to 140              | Up to 140              | Up to 140              |
| Cache (MB)                                     | 128                    | 128                    | 128                    | 128                    | 128                    | 128                    |
| Spindle Speed (RPM)                            | 5,400                  | 5,400                  | 5,400                  | 5,400                  | 5,400                  | 5,400                  |
| Reliability/Data Integrity                     |                        |                        |                        |                        |                        |                        |
| Load/Unload Cycles                             | 600,000                | 600,000                | 600,000                | 600,000                | 600,000                | 600,000                |
| Head-Rest Method                               | QuietStep™ Ramp Load   | QuietStep Ramp Load    | QuietStep Ramp Load    | QuietStep Ramp Load    | QuietStep Ramp Load    | QuietStep Ramp Load    |
| Non-recoverable Read Errors per Bits Read, Max | 1 per 10 <sup>14</sup> | 1 per 10 <sup>14</sup> | 1 per 10 <sup>14</sup> | 1 per 10 <sup>14</sup> | 1 per 10 <sup>14</sup> | 1 per 10 <sup>14</sup> |
| Limited Warranty                               | 2                      | 2                      | 2                      | 2                      | 2                      | 2                      |
| Power Management                               |                        |                        |                        |                        |                        |                        |
| Startup Current (+5 V, A)                      | 1.2                    | 1.2                    | 1.2                    | 1.0                    | 1.0                    | 1.0                    |
| Read/Write Power, Average (W)                  | 1.9/2.1                | 1.9/2.1                | 1.9/2.1                | 1.7/1.8                | 1.6/1.7                | 1.6/1.7                |
| Idle Power, Average (W)                        | 1.1                    | 1.1                    | 1.1                    | 0.5                    | 0.45                   | 0.45                   |
| Environmental                                  |                        |                        |                        |                        |                        |                        |
| Temperature, Operating (°C)                    | 0 to 60                | 0 to 60                | 0 to 60                | 0 to 60                | 0 to 60                | 0 to 60                |
| Temperature, Non-operating (°C)                | -40 to 70              | -40 to 70              | -40 to 70              | -40 to 70              | -40 to 70              | -40 to 70              |
| Shock, Operating: 2 ms (Gs)                    | 300                    | 300                    | 300                    | 400                    | 400                    | 400                    |
| Shock, Non-operating: 1ms (Gs)                 | 650                    | 650                    | 650                    | 1,000                  | 1,000                  | 1,000                  |
| Acoustics, Idle, Typical (bels—sound power)    | 2.6                    | 2.6                    | 2.6                    | 2.2                    | 2.0                    | 2.0                    |
| Acoustics, Seek, Typical (bels—sound power)    | 2.7                    | 2.7                    | 2.7                    | 2.4                    | 2.2                    | 2.2                    |
| Physical                                       |                        |                        |                        |                        |                        |                        |
| Height (mm/in)                                 | 15/0.59                | 15/0.59                | 15/0.59                | 7.0/0.276              | 7.0/0.276              | 7.0/0.276              |
| Width (mm/in)                                  | 69.85/2.750            | 69.85/2.750            | 69.85/2.750            | 69.85/2.750            | 69.85/2.750            | 69.85/2.750            |
| Depth (mm/in)                                  | 100.35/3.951           | 100.35/3.951           | 100.35/3.951           | 100.35/3.951           | 100.35/3.951           | 100.35/3.951           |
| Weight (g/lb, max)                             | 190/0.42               | 190/0.42               | 190/0.42               | 90/0.198               | 90/0.198               | 90/0.198               |
| Carton Unit Quantity                           | 40                     | 40                     | 40                     | 50                     | 50                     | 50                     |
| Cartons Per Pallet/Layer                       | 60/10                  | 60/10                  | 60/10                  | 60/10                  | 60/10                  | 60/10                  |
| Special Features                               |                        |                        |                        |                        |                        |                        |
| Multi-Tier Caching Technology™                 | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    |
| Halogen-free                                   | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    |
| RoHS compliance                                | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    |

<sup>1</sup> One gigabyte, or GB equals one billion bytes; and one terabyte or TB, equals one trillion bytes when referring to drive capacity.

<sup>2</sup> Extended warranty products available. Consult your distributor for details.

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