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**Assginment Comparison Between HDD and SSD**

SSD = Like a memory stick, there are no moving parts to an SSD. Rather, information is stored in microchips.  Conversely, a hard disk drive uses a mechanical arm with a read/write head to move around and read information from the right location on a storage platter.

HDD = A read/write head floats above the spinning platter reading and writing data. The faster the platter spins, the faster an HDD can perform. Typical laptop drives today spin at either 5400 RPM (Revolutions per Minute) or 7200RPM, though some server-based platters spin at up to 15,000 RPM!

|  |  |
| --- | --- |
| https://www.storagereview.com/images/Hitachi-Deskstar-7K4000.jpg | https://www.storagereview.com/images/StorageReview-Samsung-SSD-850-Pro.jpg |
| HDD Top Side | SSD Top Side |

Now it’s time to do some comparisons and determine which might be best for your individual needs - SSD or HDD?  The best way to compare items is a table with a side by side comparison of items in which a green box indicates an advantage:

|  |  |  |
| --- | --- | --- |
| **Attribute** | **SSD (Solid State Drive)** | **HDD (Hard Disk Drive)** |
| **Cost** | Expensive, roughly $0.20 per gigabyte (based on buying a 1TB drive) | https://www.storagereview.com/images/shortcode-tick.pngOnly around $0.03 per gigabyte, very cheap (buying a 4TB model) |
| **Capacity** | Typically not larger than 1TB for notebook size drives; 4TB max for desktops | https://www.storagereview.com/images/shortcode-tick.pngTypically around 500GB and 2TB maximum for notebook size drives; 10TB max for desktops |
| **File Copy / Write Speed** | https://www.storagereview.com/images/shortcode-tick.pngGenerally above 200 MB/s and up to 550 MB/s for cutting edge drives | The range can be anywhere from 50 – 120MB / s |
| **File Opening Speed** | https://www.storagereview.com/images/shortcode-tick.pngUp to 30% faster than HDD | Slower than SSD |
| **Size** | https://www.storagereview.com/images/shortcode-tick.pngThe form factor of the SSD is actually the same as a regular hard drive. It comes in a standard 1.8”, 2.5”, or 3.5” size that can fit into the housing and connectors for the same-sized hard drives. | The most common size for laptop hard drives is the 2.5” form factor while a larger 3.5” form factor is used in desktop computers. |