

Usable size vs Raw Size Explained

What is Overprovisioning?

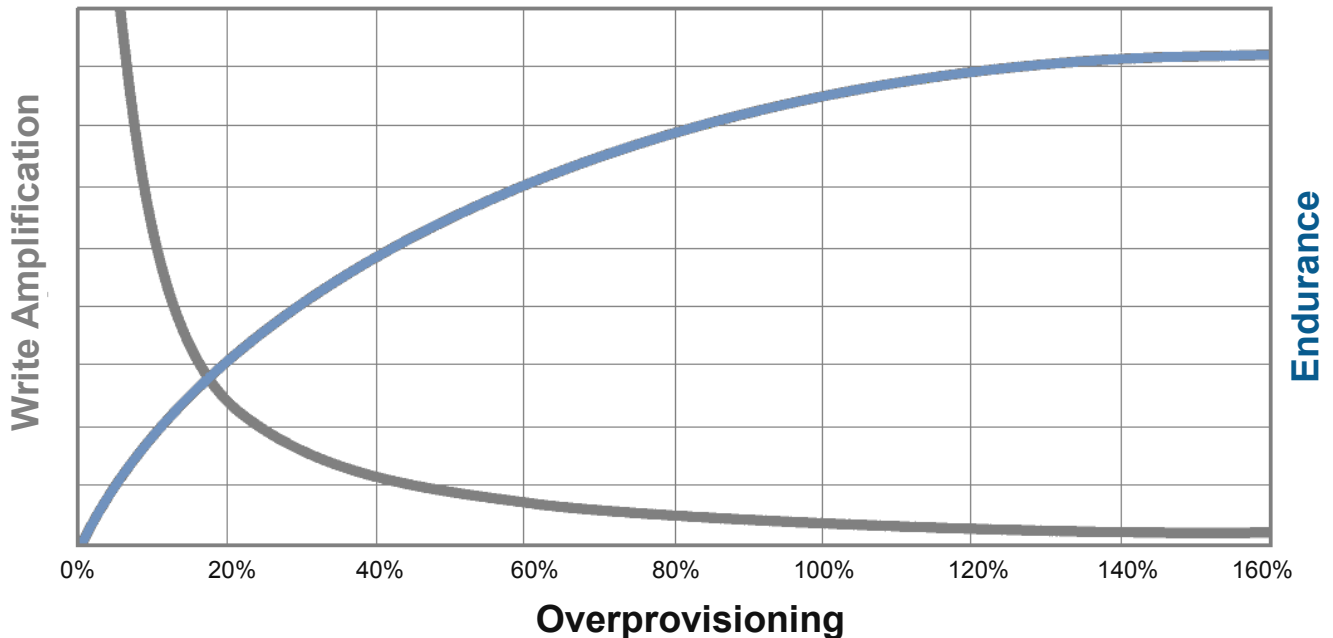
All NAND Flash based SSDs require reserved space for the controller to properly manage the data on the drive. This reserved space can also include the controller's firmware, spare blocks, and various data used in garbage collection and wear leveling.

If a significant "extra" amount of the drive is allocated for these functions it is often referred to as overprovisioning. A common amount is roughly 7%. Therefore a 128GB drive would act as if it was 120GB. The benefit of allocating this extra space is increased performance, reduced write amplification, better wear leveling, and increased drive endurance.

For some applications where capacity is not a limiting factor, it can even be worthwhile to increase overprovisioning levels to 100% or more. This can allow the use of less expensive MLC drives where traditionally SLC technology has been the only option. An MLC drive with 150% overprovisioning can have more than four times the endurance of a standard drive.

Legacy Electronics' engineers can analyze real world drive activity to accurately calculate the write endurance of a system. This ensures that the SSD will exceed all expectations and provide end users with the highest levels of reliability and performance.

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About Us

Located in Canton, South Dakota, Legacy Electronics specializes in designing and manufacturing a full line of high-density memory modules, printed circuit boards, SSDs, and other computer products.

Legacy Electronics is home of the patented Canopy® chip-stacking alternative, a three-dimensional printed circuit board subassembly and process technology. Legacy utilizes an ISO 9001:2008 certified Quality Management System.

Legacy's cutting edge products are available in a variety of densities, speeds, and voltage levels. Our standard and custom modules are available in a wide array of form factors, including JEDEC-standard DIMMs and SO-DIMMs. Our products exceed industry standards. All Legacy products are proudly made in the USA..

Advanced tested memory products

Legacy Electronics is the only company to have a 100% pass rate for over 300 tests in a calendar year at CMTL (Computer Memory Test Labs).

In addition, CMTL awarded Legacy Electronics with a lifetime achievement award after 15 plus years of service with CMTL.

The CMTL Memory Module Certification Program performs advanced compatibility testing on motherboards from the industry's leading manufacturers like Intel®. All the modules listed at CMTL have passed rigorous cross platform certification testing criteria and are proven to be compatible with the motherboards on which they were tested.



Contact Us

Give us a call or visit us online for more information about our products and services

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