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LITE-ON Storage is now Solid State Storage Technology Corporation

## Selecting a SATA Client SSD



## Client SSD Basics

Client, or business client, solid state drives (SSDs) are those oriented as a storage solution for general-purpose, everyday usage. The client – or more accurately, the employee user – will be interacting with others and accomplishing work on a personal computer (PC). PCs include notebooks and laptops,

Ultrabooks and their variations including netbooks, all-in-one (AIO) and embedded solutions, plus interminable desktop machines. These types of machines are ubiquitous but they may be deployed in bulk which encourages a consistent storage solution.

Client workloads - everything from Microsoft Teams to spreadsheets – tend to be far leaner than what is regularly required for enterprise and in the data center. This means a client storage solution has a higher latency tolerance, making SATA SSDs often a sufficient alternative to NVMe™ SSDs while still providing a superior user experience compared to one with a hard drive (HDD). Client workloads also tend to be in bursts rather than being sustained, making SLC caching an excellent feature – one we offer on some drives – for enhanced productivity.

## Reliability

Client SSDs also have less stringent reliability guidelines for bit error rates (BER), as outlined by JEDEC, but can still be exceptionally reliable. In particular, our drives utilize 3D TLC which is quite robust and the flash is likely to outlive the lifespan of any device. While client SSDs do not require power loss protection – and hopefully any client devices will have battery or UPS backup – we do support thermal throttling to ensure other components on the SSD do not fail early. It's also important not to buy off-the-shelf mainstream products as hardware can vary. Many manufacturers operate on a bill-of-materials (BOM) level which can also mean reduced support; alternatively, buying from us makes sure any bulk storage purchases are done safely.

## Form Factor and Features

One of the advantages of client SATA SSDs is that they work with a wide range of machines. SATA, and the corresponding AHCI protocol, will work on legacy hardware just fine. Computers with 2.5" bays, possibly having come with HDDs from the factory, can be easily upgraded. Likewise, computers with spare M.2

slots can install our M.2 SATA SSDs. Our SATA SSDs come in both 2.5" and the traditional 2280 form factor; those requiring shorter 2230 and 2242 options, however, may be satisfied by our NVMe™ client SSDs.

Additionally, client machines – as opposed to personal or gaming devices – may require data protection. For example, it may be necessary to have self-encrypting drives (SEDs) through Opal TCG utilizing AES encryption. Our blogs cover this and other topics related to security, plus we offer a range of SATA SSDs with this type of support.

Another aspect to consider is value, which means getting the right drive at the right price. SATA can offer savings versus NVMe™ but further, the capacity scale is more flexible. For example, a lightweight machine might only need 128GB of storage while someone working on content creation may want closer to 1TB. Our drive options fill that range so that capacity does not go to waste. We also have low-power designs to stretch mobile battery life even further. In short: pick the drive that suits your needs.

## Summary

The average employee wants a frustration-free, smooth user experience, regardless of what type of computer they are using. A simple jump from HDD to SSD will offer this, whether 2.5" or M.2, as performance needs are more modest than those found in the enterprise space. However, consistency and reliability are paramount: the drive should operate like new for the life of the device. Further flexibility can be found in capacity, SLC caching, thermal throttling, and low power consumption. A business machine may also need to be secure, and there's optionally encryption for that. No matter what you might need, Solid State Storage Technology Corporation has you covered.

\*All product and company names may be trademarks or registered trademarks of their respective holders.

## Our SSD Solutions



### CA6 Series | PCIe® Gen 4

- Slim form factor— M.2 2280
- Random read/write up to 1000K/1000K IOPS
- Low latency
- LDPC technology



### CL4 Series | PCIe® Gen 4

- Slim form factor— M.2 2230/2242/2280
- Random read/write up to 450K/400K IOPS
- Low latency
- 256GB - 1TB

Please contact our [Solid State Storage Technology Corp. expert](#) for more information.

\*Specifications and features are subject to change without prior notice. Images are samples only, not actual products.

Request Full Specs Sheets



# ABOUT US

A subsidiary of KIOXIA Corporation, **Solid State Storage Technology Corporation** is a global leader in the design, development, and manufacturing of digital storage solutions. We offer a comprehensive lineup of high-performance customizable SSDs for the Enterprise, Industrial, and Business Client markets. With various form factors and interfaces, our SSD solutions help businesses simplify their storage infrastructures accelerating variable workloads, improving efficiency, and reducing total cost of ownership.

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