



CA1 Series Solid-State Drives | NVMe M.2 PCIe



LITE-ON SSDs Move at the Speed of You

Stop waiting for application load times. Do more by running your system longer, faster and more efficiently.

HIGH PERFORMANCE - BREAK THE SATA LIMITATION

Meet the perfect solid-state drive solution for boot and caching needs. LITE-ON's CA1 Series Solid-State Drives with the NVMe M.2 PCIe interface boosts your device's performance by accelerating application responsiveness, increasing productivity, and improving energy efficiency. Featuring the NVMe protocol with LITE-ON's customized firmware, commands are streamlined and subsequently, result in improvement. The NVMe protocol can process much heavier workloads with greater performance than SATA/AHCI interface. Surpass the performance limitation by SATA interface AHCI protocol and enter the next generation of PCIe with NVMe. This simple upgrade, delivers superior speed at 4KB random read performance of up to 189,000 IOPS and 4KB write performance of up to 150,000 IOPS.

With its small form factor and M.2 interface, the latest in SSD design, the CA1 fits easily into a motherboard's PCIe slot. Built to expedite your data efficiently and securely no matter what the file type it operates more efficiently than SATA SSDs, while consuming less power.

ENHANCE ENDURANCE WITH LOW DENSITY PARITY CHECK (LDPC)

Take advantage of the latest improvement in error correction with LDPC. LDPC has greater correction power than conventional BCH to extend the life of the drive.

THE FIRMWARE ADVANTAGE

Our dedicated engineers work closely with high-grade chip manufacturers to develop solutions particular to your needs. LITE-ON SSDs are already an industry-leading product, and with LITE-ON's customized proprietary firmware, your LITE-ON SSD will provide superior performance at consistent speeds for years to come.

FEATURES

- HIGH PERFORMANCE
- NVME FOR LOWER LATENCY
- SMALL FORM FACTOR FOR BETTER AIRFLOW
- LDPC (LOW DENSITY PARITY CHECK) FOR EXTENDED LIFE-SPAN
- CUSTOMIZED FIRMWARE
- AVAILABLE IN 128/256/512/1024 GB CAPACITIES

APPLICATION WORKLOADS

- BOOT DRIVE
- CACHE DRIVE
- PERFECT FOR WEB DEVELOPMENT, VIDEO EDITING, AND GRAPHIC DESIGN APPLICATIONS

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Technical Specifications				
Model Name	CA1-8D128	CA1-8D256	CA1-8D512	CA1-GD1024
Capacity	128 GB	256 GB	512 GB	1 TB
Performance				
Sequential Read/Write¹	1700/570 MB/s	2300/900 MB/s	2300/900 MB/s	2300/900 MB/s
4K Random Read/Write¹	120K/85K IOPS	174K/140K IOPS	189K/150KIOPS	189K/150K IOPS
Compatibility				
Host Interface	NVMe PCIe Gen 3x4			
Form Factor	M.2 22110: 80mm x 22mm x 3.65mm @ 18g Max			
Reliability				
UBER²	1 error in 10 ¹⁷ bits transferred			
End-to-End Protection	Optional			
Power Loss Protection	Supported			
MTBF³	1.5 million hours			
Endurance				
DWPD⁴	Up to 1 Drive Write per Day for 3 Years			
Data Retention	1 Year Power-off Retention			
Power Consumption				
Idle	< 2.4 watts			
Active	< 8.25 watts			
Environment				
Operating Temperature	0 to 70° C			
Non-operating Temperature	-40 to 85° C			

1. Based on internal testing, performance may vary depending on host device, OS, and application.

2. UBER– Unrecovered Bit Error Rate

3. MTBF– Mean Time Between Failures based on parts stress analysis.

4. Standard 3 year warranty

For more information, please visit
liteonssd.com



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LITE-ON Storage is a Strategic Business Group (SBG) of LITE-ON Technology Corporation.

LITE-ON Storage is a global leader in the design, development, and manufacturing of Solid State Drives (SSDs) and Optical Disc Drives (ODDs).

LITE-ON Storage offers customized solutions and superior firmware to PC Client, Industrial Solutions, Automotive, Enterprise, and Cloud Computing environments. All LITE-ON SSDs are designed and developed 100% in-house at their state-of-the art facilities in Taiwan.

Specifications and data are subject to change without notice.

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