



CL1 series

CL1 series M.2 2280 NVMe SSD
PCIe Gen 3x4



- Supports NVMe PCIe Gen 3 x 4
- Sequential read / write up to 2,200 / 1,700 MB/s, random read / write up to 230,000 / 270,000 IOPS
- Host Memory Buffer technology
- High quality and reliability
- Customized firmware

The CL1 PCIe Gen3 x 4 Lane series Solid State Drive (SSD) delivers high performance in M.2 type 2280 form factor while simultaneously improving system responsiveness for applications over standard rotating drive media or hard disk drives. By combining leading NAND flash memory technology with our innovative high performance firmware, LITEON delivers a SSD for PCIe hard disk drive drop-in replacement with enhanced performance, reliability, ruggedness and power savings. Since there are no rotating platters, moving heads, fragile actuators, or unnecessary delays that can slow down the storage subsystem, significant I/O and throughput performance improvement is achieved as compared to rotating media or hard disk drives. This document describes the specifications of the CL1 PCIe Gen3 x 4 Lane series M.2 SSD in M.2 type 2280 form factors.

The CL1 PCIe Gen3 x 4 Lane series M.2 SSD primarily targets M.2 based laptop PCs, highly rugged client devices, as well as thin and light mini/sub-notebooks. Key attributes include high performance, low power, increased system responsiveness, high reliability, and enhanced ruggedness as compared to standard hard drives. The CL1 PCIe Gen3 x 4 Lane series M.2 SSD is available in M.2 type 2280 form factor that are electrically, mechanically, and software compatible with existing M.2 slots. Our flexible design allows interchangeability with existing hard drives based on the M.2 interface standard.

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CL1

Model			
Model	CL1-8D128	CL1-8D256	CL1-8D512
Capacity	128 GB	256 GB	512 GB
Controller	SMI SM2263XT		
NAND Flash	TOSHIBA B1CS4 3D TLC		
Performance (Under Windows NTFS)			
Sequential Read Speed (MB/s)	Up to 1,400	Up to 2,200	Up to 2,200
Sequential Write Speed (MB/s)	Up to 850	Up to 1,600	Up to 1,700
Random Read Speed (IOPS)	Up to 100,000	Up to 190,000	Up to 230,000
Random Write Speed (IOPS)	Up to 210,000	Up to 260,000	Up to 270,000
Environment and Reliability			
Power Requirement	DC 3.3V 2.5A (Max.)		
Temperature	0°C ~70°C / 32°F ~ 158°F (Operating)		
MTBF	>1,500,000 Hours		
Warranty	3 years		
Compatibility			
OS Support	Microsoft Windows 8.1, 10/ Linux OS		
Agency Approval	UL, TUV, FCC, CE, BSMI, VCCI, RCM, KCC, EAC, ROHS, WHQL		
Command Set Support	TRIM, S.M.A.R.T, IO queue, NVMe command		
Interface	M.2 PCIe Gen 3 x 4 with NVMe Express		
S.M.A.R.T	Supported		
Form Factor and Connectors			
Form Factor	M.2 2280		
Power Connector	M.2 connector for DC 3.3V input		
Data Connector	M.2 connector		
Dimension and Weight			
Dimension (L x W x H)	80.00 x 22.00 x 2.30 mm / 3.15 x 0.87 x 0.09 inch		
Weight (Max.)	10g / 0.35oz		
Package Content			
Drive	128GB / 256GB / 512GB SSD		

Specification subject to change without notice.

Actual performance may vary according to hardware, software and overall system configuration.

Performance measured by CrystalDiskMark ver. 5.0.2, IOMETER 1.1.0

Test Platform: Motherboard ASUS Z270 Mark 1, Win 10 professional x64

www.liteonssd.com

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