Intel® SSD DC P4510 Series

1.0TB, 2.5in PCIe 3.1 x4, 3D2, TLC

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Specifications

- **Essentials**
- Performance
- Reliability
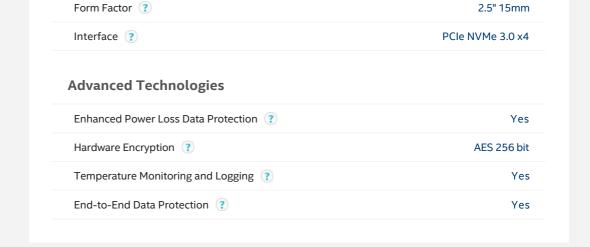- Package Specifications
- Advanced Technologies

Ordering and Compliance

Compatible products

Downloads and Software

Essentials

⬇ Export specifications

Product Collection	Intel® SSD DC P4510 Series
Code Name	Products formerly Cliffdale Refresh
Capacity	1 TB
Status	Launched
Launch Date ?	Q3'17
Lithography Type	64-Layer 3D TLC NAND

Performance

Sequential Read (up to) ?	2850 MB/s
Sequential Write (up to) ?	1100 MB/s
Random Read (100% Span) ?	465000 IOPS
Random Write (100% Span) ?	70000 IOPS
Latency - Read ?	77 µs
Latency - Write ?	18 µs
Power - Active ?	10
Power - Idle ?	5

Reliability

Vibration - Operating ?	2.17GRMS(5-700MHz)
Vibration - Non-Operating ?	3.13GRMS(5-800MHz)
Shock (Operating and Non-Operating) ?	1000G(0.5ms)
Operating Temperature Range	0°C to 70°C
Endurance Rating (Lifetime Writes) ?	1.92 PBW
Mean Time Between Failures (MTBF) ?	2.0 Million Hours
Uncorrectable Bit Error Rate (UBER) ?	1E-17
Warranty Period	5 yrs

Package Specifications

Weight	139g

Form Factor ?	2.5" 15mm
Interface ?	PCIe NVMe 3.0 x4

Advanced Technologies

Enhanced Power Loss Data Protection ?	Yes
Hardware Encryption ?	AES 256 bit
Temperature Monitoring and Logging ?	Yes
End-to-End Data Protection ?	Yes

More support options for Intel® SSD DC P4510 Series (1.0TB, 2.5in PCIe 3.1 x4, 3D2, TLC)

Product Support

Downloads and Software

Support Community

Warranty and Replacement

Need more help?

Contact support

Give Feedback

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Refer to Datasheet for formal definitions of product properties and features.

‡ This feature may not be available on all computing systems. Please check with the system vendor to determine if your system delivers this feature, or reference the system specifications (motherboard, processor, chipset, power supply, HDD, graphics controller, memory, BIOS, drivers, virtual machine monitor-VMM, platform software, and/or operating system) for feature compatibility. Functionality, performance, and other benefits of this feature may vary depending on system configuration.

"Announced" SKUs are not yet available. Please refer to the Launch Date for market availability.

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