



Intel® SSD DC P4510 Series

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

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Essentials

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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 TLC 3D NAND
Use Conditions ?	Server/Enterprise

Performance Specifications

Sequential Bandwidth - 100% Read (up to) ?	2850 MB/s
Sequential Bandwidth - 100% Write (up to) ?	1100 MB/s
Random Read (100% Span) ?	465000 IOPS (4K Blocks)
Random Write (100% Span) ?	70000 IOPS (4K Blocks)
Power - Active ?	10W
Power - Idle ?	5W

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
Operating Temperature (Maximum)	70 °C
Operating Temperature (Minimum)	0 °C
Endurance Rating (Lifetime Writes) ?	1.92 PBW
Mean Time Between Failures (MTBF) ?	2 million hours
Uncorrectable Bit Error Rate (UBER) ?	1 sector per 10 ¹⁷ bits read
Warranty Period ?	5 yrs

Package Specifications

Weight	131g
Form Factor ?	U.2 15mm
Interface ?	PCIe 3.1 x4, NVMe

Advanced Technologies

Enhanced Power Loss Data Protection ?	Yes
Hardware Encryption ?	AES 256 bit
Temperature Monitoring and Logging ?	Yes
End-to-End Data Protection ?	Yes
Intel® Smart Response Technology ?	No
Intel® Rapid Start Technology ?	No
Intel® Remote Secure Erase ?	No

Ordering and spec information

Intel® SSD DC P4510 Series (1.0TB, 2.5in PCIe 3.1x4, 3D2, TLC) Generic Single Pack

MM#	959391
Ordering Code	SSDPE2KX010T801

Intel® SSD DC P4510 Series (1.0TB, 2.5in PCIe 3.1x4, 3D2, TLC) Generic 10 Pack

MM#	959392
Ordering Code	SSDPE2KX010T810

Intel® SSD DC P4510 Series (1.0TB, 2.5in PCIe 3.1x4, 3D2, TLC) Generic Single Pack OPAL

MM#	984815
Ordering Code	SSDPE2KX010T805

Intel® SSD DC P4510 Series (1.0TB, 2.5in PCIe 3.1x4, 3D2, TLC) Generic Single Pack

MM#	99AKZN
Ordering Code	SSDPE2KX010T807

Trade compliance information

ECCN	5A992C
CCATS	G162706
US HTS	8523510000

PCN/MDDS Information

959391	PCN MDDS
959392	PCN MDDS
984815	PCN
99AKZN	PCN MDDS

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



Product Support



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Support Community



Warranty and Replacement



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

‡ This feature may not be available on all computing platforms. Check with your system manufacturer 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.

Intel® Rapid Start Technology requires a select Intel® processor, Intel® software and BIOS update, and a Solid-State Drive (SSD) or hybrid drive. Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

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

Intel® Smart Response Technology requires a select Intel® Core™ processor, an enabled chipset, Intel® Rapid Storage Technology software, and a properly configured hybrid drive (HDD + small SSD). Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

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