

Access Enterprise Performance in PCs With the Industry's First PC-based PCIe Solid State Drive

Samsung Client/Mobile PCIe-based Solid State Drive (XP941)



Today's PC enthusiasts and power users, when utilizing intensive programs such as video editing and streaming, hunger for more performance storage solutions. The problem is that existing SATA-based architectures create performance bottlenecks and are less responsive when running these type of sequential workload applications.

The Samsung XP941 PCIe-based Solid-State Drive (SSD) incorporates enthusiast-grade performance with the dependability and endurance that has traditionally been reserved for data center storage products. There is no need to compromise, as Samsung's XP941 PCIe-based SSD surpasses the speed limit than any SATA-based SSD. Available capacities are 128, 256 and 512GB.

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Boost your next PC's performance with a Samsung's XP941 Solid-State Drive and get:

Achieve Maximum Performance

No need to RAID several SSDs, as Samsung's XP941 PCIe-based SSD delivers over a gigabyte a second in sequential reads and writes. This is not achievable by comparable SATA-based storage solutions. Experience PCIe performance throughput without any impact to your applications.

The new Samsung XP941 enables a sequential read performance of 1,400MB/s (megabytes per second), which is the highest performance available with a PCIe 2.0 interface. This allows the drive to read 500GB of data or 100 HD movies as large as 5GB (gigabytes) in only six minutes, or 10 HD movies at 5GB in 36 seconds. That is approximately seven times faster than a hard disk drive (which would need over 40 minutes for the same task), and more than 2.5 times faster than the fastest SATA SSD.

Superior Quality and Reliability

Samsung's MLC-based NAND technology provides dependable boot-ups and loading apps for intensive storage workloads such as sequential workloads, video editing, streaming, logging, and time stamping. Designed for ultra-thin notebook and power tablets, the XP941 SSD allows power users to plug-in and play with any M.2 PCIe slot.

The XP941 comes in the new M.2 form factor (80mm x 22mm), weighing approximately six grams – about a ninth of the 54 grams of a SATA-based 2.5 inch SSD. Also, the XP941's volume is about a seventh of that of a 2.5 inch SSD, freeing up more space for the notebook's battery and therein providing the opportunity for increased mobility that will enhance user convenience.

Samsung XP941 Series Technical Specifications

Form Factor	M.2 2280
Capacity (GB)	128, 256, 512
Host Interface	PCI-Express 2.0 x4
MTBF	1.5 Million Hours
Uncorrectable Bit Error Rate (UBER)	< 1 sector per 10 ¹⁵ bits read
Power Consumption (Active/Idle)	5.8W / 80mW
Peak Read Sequential Performance	Up to 1170 MB/s
Peak Write Sequential Performance	Up to 930 MB/s
Peak Random Performance	Reads: Up to 122K IOPS Writes: Up to 72K IOPS
Physical Dimensions	22 x 80 x 4 mm
Weight	8.5g



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