PHISON

CONSUMER

The Most Efficient Gen5 Client SSD

Introducing the Phison PS5037- E37T SSD controller, the versatile mainstream champion that delivers 14GB/s performance in a cool and efficient package ready for the latest notebooks. The E37T adapts seamlessly to any workload, from AI PCs to handheld applications, redefining industry expectations for DRAM-less SSD performance.

Application

AI PCs

Handheld Gaming

Notebooks

Product Highlights

Best-in-class Performance

Experience exhilarating throughput from a DRAM-less SSD with the E37T, delivering up to 14,900 MB/s and 3,000K IOPS of performance, and built on a TSMC 6nm process node.

Versatile and Adaptable

A system drive for an AI PC or small form-factor storage for handheld gaming devices, the E37T is available in a variety of form factors and capacities. It's fine-tuned for every niche with zero performance compromises.

Unmatched Power Efficiency

Advanced power management techniques ensure top-of-the-line performance while sipping less than 2100mW of power under load and less than 1.2mW in sleep states. That's nearly 5-times less power than typical PCIe Gen5 SSDs.

Advanced Data Reliability and Error Correction

Equipped with the Phison 8th Generation LDPC Data Protection Engine, End-to-End Datapath Protection, and internal SRAM Error Correction Code, the E37T ensures your data is safe and reliable forever.

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PS5037-E37T

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Features	Specifications
Host Interface	- PCIe 5.0x4 (Bandwidth: 32GT/s x4) - Backward compatible with existing PCIe generation transfer rates - Compliance with PCI Express Base Specification Revision 5.0 - Compliance with NVMe 2.1 - Host Memory Buffer (HMB) support
Processor	- Single-CPU architecture with built-in 32-bit microcontroller - TSMC 6nm process technology
Flash Controller	- Up to 4 Channels with 16 Chip Enable (CE) counts - Flash transfer rate up to 4800MT/s - Capacity up to 8TB - Support 3D TLC and QLC NAND flash memory - Compliance with Toggle 5.0 and ONFI 5.1 - Flash I/O operating voltage supply 1.2V
Data Reliability	- Phison 8th generation LDPC ECC & RAID ECC - SRAM ECC engine/parity protection - End-to-End Data Path Protection
Security	- Pyrite 2.01 - CNSA 2.0 - AES 256 - SHA 384/512 - RSA 4096 - TCG Opal 2.01
Performance	- Sequential Read up to 14,900 MB/s - Sequential Write up to 14,500 MB/s - 4K Random Read up to 3,000K IOPS - 4K Random Write up to 3,000K IOPS
Power Management	- L1.2 < 1.2mW
Temperature Range	- Operating range: 0~70 °C - Storage range: -40~85 °C
Package	- 228-ball FCCSP, 8.0mm x 12.5mm
Peripheral	- Built-in internal thermal sensor - GPIO pins - Built-in UART function - I2C and SPI for external ROM - I3C supported

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