

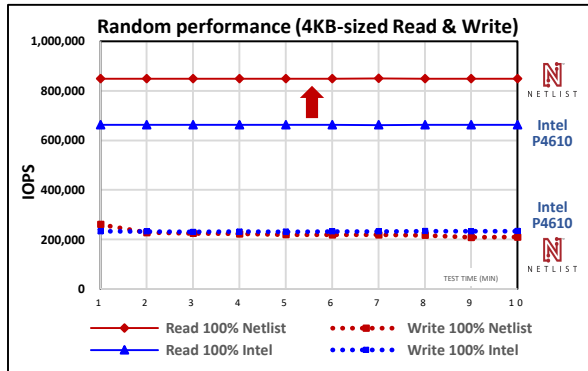
Netlist N1951 NVMe SSD Superior Performance compare to Intel P4610 Drive

Tested in AMD EPYC™ Processor Platform using high performance AMD EPYC™ 7702 64-Core Processor

This test compares two 3.2TB NVMe SSD drives, the Netlist N1951 and Intel's P4610. Both were tested on AMD EPYC™ 7702 Processor platform to measure the performance of Random Read/Write, Sequential Read/Write and Latency in accordance with SNIA SSD performance test conditions. FIO v3.1 tool was used as a benchmark tool.

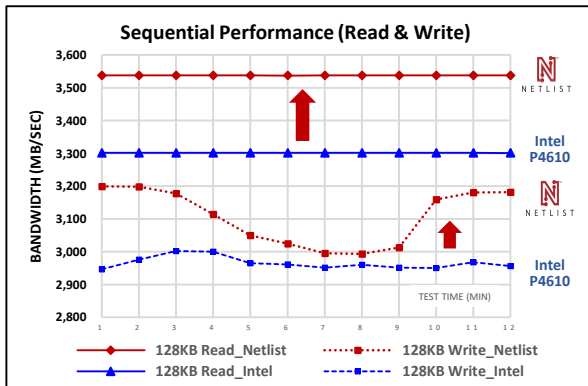
Random Read and Write IOPs

Performance was measured with 4KB-sized requests at sustained state. The graph below shows Netlist N1951 drive has superior Random Read performance to Intel P4610 drive



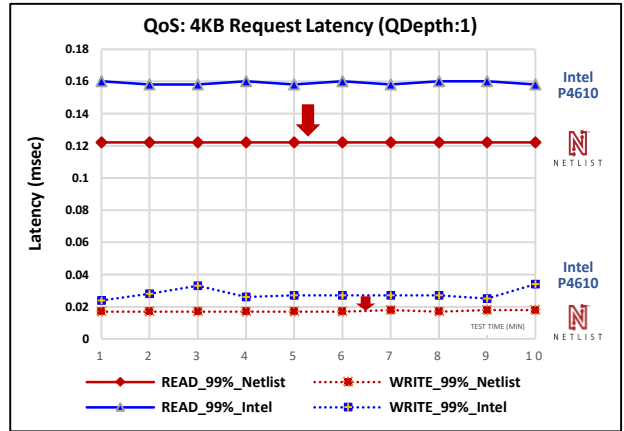
Sequential Read and Write Performance

The sequential read and write performance was measured with 128KB sized requests. The graphs below compare the two drives.



Latency

As a final comparison, the below result shows the lower Read and Write latency of the Netlist drive over Intel drive.



Test conditions

The below conditions were used for the performance measurements

- Random 4KB R/W : # Job =8, QDepth=64
- Sequential 128KB R/W : # Job =1, QDepth=512

Test system configuration

The below system configuration was used for this performance measurements

Test System Configuration	
CPU	2x AMD EPYC 7702 @ 3.34GHz (Total 2 x 64 Cores)
Memory	256GB (16x 16GB, for NUMA set) • Applied CPU affinity for fio test.
OS	Linux (Kernel version: 4.19.5-1)
FIO	Ver. 3.1
DUT	NVMe SSD (PCIe Gen3, x4 lane) • Netlist : N1951 3.2TB U.2 • Intel : P4610 3.2TB U.2

Note) 1GB = 1,000,000,000 Bytes,