



NETLIST

Netlist N1962 Series NVMe SSD

PCI Express Gen4 Enterprise SSD
Product Brief



Best-in-Class Performance, Availability, and Reliability will ensure that you meet your delivery timetables and the performances required by your enterprise applications

Netlist's Next Generation Enterprise NVMe Express™ (NVMe™) Solid State Drives (SSDs) are built using PCI Express™ (PCIe™) Gen4 protocol and efficient NVMe interface. By combining a feature-rich PCIe Gen4 controller with 96-layer 3D Triple Level Cell (TLC) NAND and best-in-class firmware, Netlist's NVMe SSDs scale in capacity (up to 16TB) as well as performance to handle the toughest enterprise application workloads.

HIGHLIGHTS



ULTRA-FAST PERFORMANCE

N1962 delivers up to 7 GB/s sequential performance and 1.6M IOPS random read speeds, bringing world-class performance to enterprise environments



AVAILABILITY

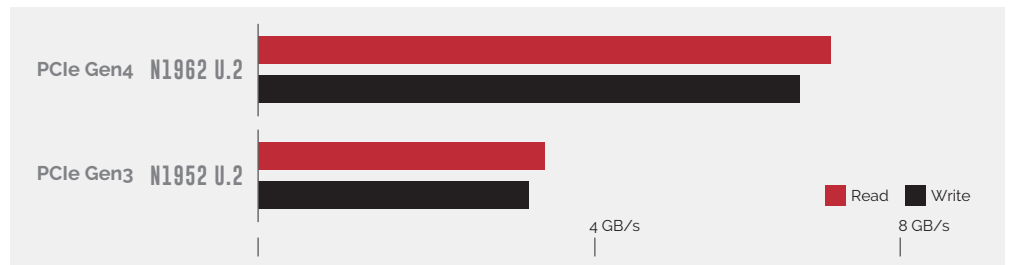
Netlist availabilities include high capacity (up to 16 TB) NVMe SSD drives with short lead times, differentiating features, and unparalleled technical and logistical support



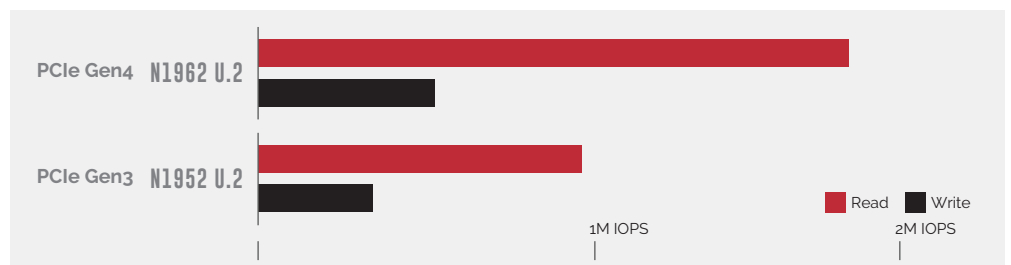
LONG PRODUCT LIFECYCLE

Netlist extends the typical SSD lifecycle (~1 to 2 years) beyond what the majors do, to not only ensure a longer continuity of supply, but also reduce overall engineering and test spend (lower TCO)

Gen3 vs. Gen4 Sequential Performance (GB/s)



Gen3 vs. Gen4 Random 4kB Performance (IOPS)





Netlist's N1962 supports PCIe Gen4 (Gen4 x4) and is backward compatible to PCIe Gen3. A variety of capacities ranging from 3.2 TB up to 15.36 TB enable builders to scale up as needed. The NVMe SSD Series can be over-provisioned to support 1 DWPDP and 3 DWPDP, but can also be customized up to 9 DWPDP for computational or write intensive applications and/or products that require very long lifecycle operation.

ADVANCED SSD FEATURES

TCG Opal (Ruby) & SED

active data & data-at-rest security features that provide encryption key management and AES-256 encryption; eliminates and reduces data breach costs

Sanitize

securely deletes all user data, metadata, and log pages from the NVMe SSD with a single command; whether the drive is returned, repurposed, or decommissioned, data cannot be reconstructed

T10 Protection Information (PI)

end-to-end data protection (DIF/DIX) that supports variable sector sizes to ensure the highest data integrity between host & device

NVMe-MI

management interface for self-test, monitoring health status, inventorying, and configuration using out-of-band path (SMBus)

Customizations

Netlist offers customizations of the SSD's firmware, endurance, thermal, mechanical and power features to enable customers to truly optimize and differentiate

Multiple Namespaces

support of up to 32 namespaces which can be used for a variety of cases such as multi-tenancy, caching acceleration, and security isolation

Telemetry

debug feature that allows manufacturer to collect unique logs with industry standard commands and drivers

NETLIST N1962 SPECIFICATIONS / FEATURES:

Attribute	Specifications	
Series	N1962 D2 (High Performance)	N1962 E2 (High Performance)
NAND Type	96-Layer 3D TLC NAND (176-Layer Q1'22)	
Endurance	1 DWPDP (up to 9 DWPDP) ¹	3 DWPDP (up to 9 DWPDP) ¹
Form Factor & Capacity	U.2 15mm: 3.84 TB / 7.68 TB / 15.36 TB	U.2 15mm: 3.2 TB / 6.4 TB / 12.8 TB
Sequential Read	Gen4: 7.0 GB/s (backwards compatible to) Gen3: 3.5 GB/s	
Sequential Write	Gen4: 6.5 GB/s (backwards compatible to) Gen3: 3.4 GB/s	
Random Read	Gen4: 1600K IOPS (backwards compatible to) Gen3: 840K IOPS	
Random Write	Gen4: 245K IOPS (backwards compatible to) Gen3: 240K IOPS	
Latency Read	Gen4: 78 μs (backwards compatible to) Gen3: 80 μs	
Latency Write	Gen4: 10 μs (backwards compatible to) Gen3: 13 μs	
Uncorrectable Bit Error Rate (UBER)	1 sector per 10 ¹⁷ bits read	
Mean Time Between Failure (MTBF)	2 million hours	
Self-Encrypting Drive (SED)	Yes	
Power Loss Protection (PLP)	Yes	
Sanitize / Crypto Erase / Telemetry	Yes / Yes / Yes	
TCG Opal (Ruby)	Yes (Q3'21)	

Note 1: Customizable over-provisioning (endurance) available up to 9 DWPDP

LEARN MORE: EMAIL US AT SSD@NETLIST.COM

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The Memory Storage Company™