![NEXT COMPUTING logo]

NUCLEUS 3U

THE ULTIMATE IN RACKMOUNT VERSATILITY FOR YOUR NEEDS

The Nucleus 3U is a versatile short-depth rackmount for easy integration into the most limited workspaces. It is custom configured for the performance, power, storage and expandability you need for your most demanding use cases.

The system offers support for multiple full-length PCIe expansion cards and CPU configurations that feature high CPU core count for 3D rendering of images and animations, encoding videos, and Elastic/Kibana data visualization use cases and fast CPU clock speeds for 3D modeling use cases.

Rear view

Compact form factor, incredible performance

Modular and purpose-built for your specific high-performance requirements

Workstation-class processors from Intel and AMD

Support for full-size PCI Express cards

We work directly with our customers every day to ensure that our computers meet their unique requirements

Available CPUs	• AMD EPYC™ 3rd generation 7003 series processors (16-, 32-, 64 cores) • Single Intel Xeon 3rd generation scalable processor family • Single Intel Core i9 12th generation processor family
Memory	• AMD EPYC to 1TB 3200MHz DDR4 ECC memory • Intel Xeon to 1TB 2933MHz DDR4 ECC memory • Intel Core Processors to 512GB 2933MHz DDR4 memory
PCI Expansion	• AMD EPYC: 7 PCI Express 4.0 slots (4 x16 lanes and 3 x8 lanes) • Intel Xeon: 7 PCI Express 4.0 slots (4 x16 lanes and 3 x8 lanes) • Intel Core i7/i9 12 Generation: 3 PCI Express (2 x4.0 and 1 x 3.0 x4)
Storage	Up to (4) NVME SSDs with capacities up to 4TB each and PCIe slot based 2.5" SSDs NVMe to 30.72TB or 6G SATA to 8TB
RAID	Configuration options for up to (3) separate hardware RAIDs and multiple RAID array types including RAID 0, 1, 5, and 6 depending on use cases
Sustained Writes	• NVME to 3.3GB/Second per drive (2 drives total) • 12G SAS RAID 5 of 8 drives sustained at 6.3 GB Reads and 3.7 GB Writes • 6G SATA RAID 5 of 8 drives sustained 2.8 GB Reads / 2.6 GB Writes
Network Interface	Dual 1G/10G and expansion options
Security	Secure Boot UEFI compliant BIOS, Boot Guard, TPM2.0
Remote Management	AMD EPYC and Intel Xeon based HTML5 and API based out of band management with MAC addresses identification, one time boot on next reboot option, PXE boot option
Operating Systems	Operating Systems supported include: Windows 10, CentOS , Red Hat Enterprise Linux , VMware vSphere , Windows 2019 server
Environmental	• 0°C–40°C / 32°F–104°F. Non-Operating: -20°C–70°C, -4°F–158°F. • Relative humidity (5-95%) non-condensing • FCC Class A, CE, TUV, ROHS, Conflict Minerals Free
Power	• 750W 80 PLUS Titanium 110/220V 50/60HZ autoswitching • -or- 850W 80 PLUS Titanium 110/220V 50/60HZ autoswitching
Physical	16.50" x 20.83" x 5.25" (41.91 x 52.91 x 13.34 cm)
Warranty	1 year parts and labor; 2nd and 3rd year warranties available
Ease of Service and Upgrade	Easy access for install and removal of PCI Express cards. Easy to service other system elements. Modular design