



NUCLEUS 2U

The Nucleus 2U offers a unique form factor for high-performance computing in limited spaces. The 2U height and short, 17" rack depth make it an ideal fit for small racks or for easy transit wherever you need it to be.

Whether your task requires multiple PCI Express expansion cards, redundant power, or a high volume of swappable storage, Nucleus 2U configuration options allow you to create the perfect solution based on your needs.

The flexibility and data crunching power of the Nucleus 2U are ideal for:

- Data capture and analysis for network monitoring and cyber security
- High-bandwidth, real-time visualization for geospatial imagery analysis, surveillance, and military intelligence
- Advanced data analysis and visualization, QC, and processing for oil and gas exploration; in the field, or back in the lab
- Live broadcasting applications such as real-time graphics generation, video switching, and encoding/streaming



Front view



Rear view

High-density, high-performance, deployable

Compact 2U height, short 17" rack depth

Full ATX/CEB motherboard

Up to 8 removable SATA, SAS or Solid State hard drives

Up to 7 PCI Express expansion slots

Available CPUs	<ul style="list-style-type: none"> • Single Intel Core, Intel Xeon, or AMD Ryzen 7 processor • Single or dual Intel Xeon processors
Memory	Up to 256GB RAM
PCI Expansion	2 configuration options available: <ul style="list-style-type: none"> • 7 PCI Express slots for half-height expansion cards (vertical-mount) • 3 PCI Express slots for full-height expansion cards (3 single-width cards or 1 single-width and 1 dual-width cards, horizontal-mount)
Storage	Up to (8) fixed or no-tools removable drives; SATA, SAS, or Solid State Drives
Available Drive Capacities / Features	<ul style="list-style-type: none"> • SATA up to 2TB each • SAS up to 2TB each (or 10K RPM up to 1.8TB) • Solid State Drives up to 4TB each • Encryption options available
RAID	Onboard SATA RAID 0/1/5/10, or via add-on PCIe RAID controller
Operating Systems	<ul style="list-style-type: none"> • CentOS, Red Hat and other Linux distributions. VMware vSphere Hypervisor (ESXi) and other virtualization environments • Windows 2012 and 2016 server, Windows 7 Pro/Ultimate, Windows 8.1 Pro/Ultimate, and Windows 10 Pro
Power Options	<ul style="list-style-type: none"> • 700W 100/240V 50/60Hz auto-switching 80 PLUS rated power supply • Redundant 1+1 hot-swappable power supply options available
Physical	Width: 16.8" (426.7mm) (not including side rails) x Height: 3.4" (86.4mm) x Depth: 17.7" (449.6mm)
Warranty	1 year parts and labor; 2nd and 3rd year warranties available