



# 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**

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