



## MORE POWER

## LESS SPACE

# NUCLEUS

## REAR I/O

Typical rack-mount servers may be fine for traditional datacenters, but are not ideal for specialized requirements such as embedded vehicle applications or on-site setups. And while industrial systems may be appropriate for certain industry-specific applications, they lack the high-performance features and flexibility for more demanding requirements.

Also many environments cannot use larger servers that are 26" deep or greater. Your only alternatives are to choose a lower performing system to fit the environment or to invest in an expensive custom solution. Could choosing commodity servers, rack-mount workstations, or low-end industrial systems for your high-value solutions be costing your company money?

Nucleus - Rear I/O solves these problems by delivering high-performance computing in less space. High-speed Intel processors, massive storage and memory, and extensive PCI expansion options make Nucleus RM the ultimate flexible hardware platform for any tough computing challenge.

As a server, the modular Nucleus - Rear I/O can support off-the-shelf networking cards and all major server operating systems and virtualization packages. As a workstation, the system is designed from the ground-up to support the highest-end processors and graphics cards. Only 20" deep and 3U in height, this compact system can fit into space-constrained environments like military vehicles, base stations, or broadcast trucks, and is easily transported using a rolling case.



Rear view

Short 20" rack depth

Fast Intel® Xeon®  
and Intel Core i7  
processors

Up to 512GB DDR3  
memory

Up to 16 removable  
or fixed SATA, SAS or  
Solid State hard drives

Up to 7 full-length,  
full-height PCI Express  
or PCI slots with  
secure rear brackets

Rear facing I/O  
access

Redundant 1300W  
power supply or 48V  
DC power option

<b>Available CPUs</b>	Single or dual Intel® Xeon or single Intel® Core™ i7
<b>Memory</b>	Up to 512GB DDR4 2133MHz RAM
<b>PCI Expansion</b>	Up to (7) full-length, full-height PCI Express 3.0 slots
<b>Removable Storage</b>	<ul style="list-style-type: none"> <li>Up to (16) internal, no-tools removable SATA, SAS, or Solid State hard drives</li> <li>Or up to (4) front-access and (12) internal no-tools removable SATA, SAS, or Solid State hard drives</li> </ul>
<b>Fixed Storage</b>	<ul style="list-style-type: none"> <li>Up to (16) fixed SATA, SAS, or Solid State hard drives</li> </ul> <p>Note: mutually exclusive with some removable drive configurations</p>
<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</li> <li>Solid State Drives up to 4TB each</li> <li>Encryption options available</li> </ul>
<b>RAID</b>	Onboard RAID 0/1/5/10, or via add-on PCIe RAID controller
<b>Operating Systems</b>	<ul style="list-style-type: none"> <li>Windows Server 2012, 2016, Windows 7 Pro/Ultimate, and Windows 8 Pro/Ultimate, Windows 10 Pro</li> <li>CentOS, Red Hat and other Linux distributions, VMWare ESXi and other virtualization environments</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>700W 50/60Hz 110/220V AC power supply</li> <li>650W 50/60 Hz 110/220V AC, 1+1 redundant</li> <li>1300W 50/60 Hz 110/220V AC, 2+1 redundant hot-swappable</li> <li>650W 48V DC, 1+1 redundant</li> <li>1300W 48V DC, 2+1 redundant hot-swappable</li> </ul>
<b>Physical</b>	<ul style="list-style-type: none"> <li>16.5" (419.1mm) W—not including side rails x 5.25" (133.35mm) H x 20" (508mm) D</li> <li>~42 lbs.</li> </ul>
<b>Optional Equipment</b>	<ul style="list-style-type: none"> <li>Rugged rolling transit cases in 4U, 6U, and 8U sizes</li> <li>1U, 17" folding rack-mount LCD console with keyboard, touchpad, and 8-port KVM</li> <li>DVD-RW / BluRay optical drive</li> </ul>
<b>Warranty</b>	1 year parts and labor; 2nd and 3rd year warranties available