



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.



Short 20" rack depth

Professional-grade processors from Intel and AMD

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 AC or DC power supplies

Available CPUs	<ul style="list-style-type: none"> • Single Intel Core, Intel Xeon, AMD Ryzen, or AMD EPYC processor • Single or dual Intel Xeon processors
Memory	Up to 512GB DDR4 2133MHz RAM
PCI Expansion	Up to (7) full-length, full-height PCI Express 3.0 slots
Removable Storage	<ul style="list-style-type: none"> • Up to (16) internal, no-tools removable SATA, SAS, or Solid State hard drives • Or up to (4) front-access and (12) internal no-tools removable SATA, SAS, or Solid State hard drives
Fixed Storage	<ul style="list-style-type: none"> • Up to (16) fixed SATA, SAS, or Solid State hard drives <p>Note: mutually exclusive with some removable drive configurations</p>
Available Drive Capacities / Features	<ul style="list-style-type: none"> • SATA up to 2TB each • SAS up to 2TB each • Solid State Drives up to 4TB each • Encryption options available
RAID	Onboard RAID 0/1/5/10, or via add-on PCIe RAID controller
Operating Systems	<ul style="list-style-type: none"> • Windows Server, Windows 10 Pro • CentOS, Red Hat and other Linux distributions, VMWare ESXi and other virtualization environments
Power	<ul style="list-style-type: none"> • 680W Gold Plus PSU • 1100W 50/60Hz 110/220V AC 1+1 redundant • 1100W 48V DC, 1+1 redundant
Physical	<ul style="list-style-type: none"> • 16.5" (419.1mm) W—not including side rails x 5.25" (133.35mm) H x 20" (508mm) D • ~42 lbs.
Optional Equipment	<ul style="list-style-type: none"> • Rugged rolling transit cases in 4U, 6U, and 8U sizes • 1U, 17" folding rack-mount LCD console with keyboard, touchpad, and 8-port KVM • DVD-RW / BluRay optical drive
Warranty	1 year parts and labor; 2nd and 3rd year warranties available