



PARALLEL PROCESSING ANYWHERE

NUCLEUS **GP**

Mini-Tower Workstation for GP-GPU Computing

The use of a Graphics Processing Unit to accelerate complex computations has become an invaluable method in fields such as bioinformatics, medical imaging, weather modeling, computational finance, engineering simulation, intelligence encryption/decryption, and digital content creation.

The hardware required for General Purpose computing on a GPU (GP-GPU) has traditionally been limited to clusters of rack-mounted servers or large tower workstations. However, there are many situations where access to a cluster is not possible and a large traditional workstation is not practical.

Enter the Nucleus GP, a small form-factor mini-tower workstation optimized for GP-GPU computing. This compact desktop supercomputer provides dense GPU processing, as well as traditional CPU processing, memory, and high-speed storage, into the smallest package available. This makes the Nucleus GP ideal for space-limited environments or for transporting systems among different locations.

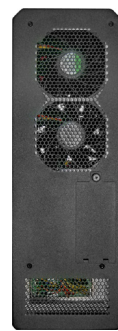
The Nucleus GP offers the same features of a high-end GPU workstation in a system that is around half the size and weight.



16.75"



5.80"



Compact, space-saving mini-tower chassis with carrying handle

Support for up to 3 dual-wide PCI Express GPUs from NVIDIA and AMD

Multi-Core Intel Xeon or Core i7 processors

Up to 64GB memory

Up to 14 swappable SATA, SAS, or Solid State hard drives

2+1 hot-swappable power supply

Physical	16.75" (W) x 17.37" (H) x 5.80" (D), ~25 lbs. (depending on configuration)
OS	<ul style="list-style-type: none"> • Microsoft Windows 7, Vista, XP Professional, 2008 Server • Linux also available in certain configurations
Available Drive Capacities / Features	<ul style="list-style-type: none"> • SATA: up to 1TB each • SAS: up to 1.2TB each • Solid State Drives: up to 960GB each • Encryption options available
GPU Support	<ul style="list-style-type: none"> • NVIDIA® Tesla™ • NVIDIA® Quadro® • AMD FirePro™
Power Supply	2+1 hot-swappable PSUs, up to 1300W load, 110/220V 50/60Hz auto-switching or 48VDC input
Environmental	<ul style="list-style-type: none"> • Operating: 5 °C–40 °C / 41 °F–104 °F. Non-Operating: -40 °C–65 °C, -40 °F–149 °F. • Relative humidity (5-95%) non-condensing
Regulations	FCC Class A, and CE. Certified TUV
Warranty	1 year parts and labor; 2nd and 3rd year warranties available

Model	AX79EWS-GP	AC602
Available CPUs	<ul style="list-style-type: none"> • Single Intel Core i7, up to 3.4GHz six-core • Single Intel Xeon E5-1600, E5-2600, E5-2600v2 series, up to 2.7GHz twelve-core 	<ul style="list-style-type: none"> • Single or dual Intel Xeon E5-1600, E5-2600, E5-2600v2 series, up to 2.7GHz twelve-core
Memory (up to)	64GB DDR3 RAM	256GB DDR3 RAM (ECC)
PCI Expansion	<ul style="list-style-type: none"> • (2) PCI Express 3.0 x16 (x16 or x8/x8 elec.) • (2) PCI Express 3.0 x16 (x16 elec.) • (3) PCI Express 3.0 x16 (x8 elec.) 	<ul style="list-style-type: none"> • (2) PCI Express 3.0 x16 • (2) PCI Express 3.0 x8 • (1) PCI Express 2.0 x8 (x4 elec.)
Removable Storage	Up to (14) internal, no-tools removable SATA, SAS, or Solid State drives	Up to (12) internal, no-tools removable SATA, SAS, or Solid State drives
Fixed Storage	<ul style="list-style-type: none"> • Up to (18) internal, fixed SATA or SAS hard drives • or up to (20) internal, fixed Solid State Drives • Note: mutually exclusive with some removable drive configurations 	
RAID	Onboard SATA RAID 0/1/5/10, or via add-on PCIe RAID controller	
Onboard Video	None—Must use add-in GPU	Aspeed AST2300
Ports	<ul style="list-style-type: none"> • (2) USB 3.0 ports • (8) USB 2.0 ports • (2) RJ-45 LAN (GbE) • (1) IEEE-1394a (FireWire 400) • (1) optical S/PDIF out • (6) audio ports • (1) PS/2 keyboard • (1) PS/2 mouse 	<ul style="list-style-type: none"> • (2) USB 3.0 ports • (4) USB 2.0 ports • (2) RJ-45 LAN (GbE) • (1) Management Connector • (1) PS/2 keyboard/mouse • (1) serial port