

MaxRax™ 9210S3: Rugged Workstation Array



A Vibration Isolated, Twelve CPU Workstation Array with AC or DC Input

The MaxRax 9210S3 is the first in MaxVision's new MaxRax series of vibration isolated computer systems. MaxVision has built upon its popular portable workstations with integrated displays and has omitted the display to create a compact workstation to be captured in a vibration isolation chassis. The MaxRax 9210S includes the latest Opteron dual core processor technology and two CPU sockets allowing a 4 Opteron CPU array. Because it uses the latest Opteron HE technology, the heat load of 4 Opteron CPU's is equal to a single Pentium 4 or Pentium D CPU allowing MaxVision to create a tight package. Military users can quickly remove the 4-drive 2.5" SATA hard drive magazine which provides up to 640GB of internal storage. Using Windows XP 64 or Linux, users can access up to 12GB of main memory.

The MaxRax series workstations make NO compromises when it comes to display technology. The MaxRax 9210S CPU Module supports the latest full range of video card technology such as the NVIDIA Quadro FX Series including the latest FX5500 (1GB memory). Additionally, the MaxRax 9210S has all the extras, such as dual Gigabit Ethernet, USB 2.0, audio/speakers, COM and printer ports and the latest double layer DVD burner. The MaxRax 9210S can run on AC or DC input power.

Although technically a commercial off-the-shelf computer, the MaxRax 9210S is inserted and captured in the S3 chassis to provide a 3-workstation system which meets the Mil Std 810F for HOT operating conditions and is rated for 0-50°C continuous operating. The MaxRax 9210S3 is also designed to endure the aggressive vibration in the operational environment of the UH-60 Blackhawk helicopter. The S3 Vibration Isolation Chassis can be tuned for a specific ground vehicle or aircraft (inquire for more details). Military users

who have been to the Middle East know of the small particle dust that gets into every part of their computer. This dust can damage internal components thus forcing frequent cleaning. MaxVision calls this "Baghdad dirt". MaxVision has created the "Baghdad Filter™" technology which has nearly no back pressure but catches nearly all (greater than 99%) of the small particles. This filter can be washed and recharged in the field. With other filter technology, you would have to replace it every day or two. With other filter technology, your temperature begins to rise within a few days as the filter begins to load with dirt. With the "Baghdad Filter™," you wash it and recharge it much less frequently. With less particle/dust exposure, the filter may require cleaning only once per year. Users can replace the filter without tools while the unit is running. The exhaust side of the system is also protected from dust and particles in the event that the unit is exposed to dust in a non-operating situation (e.g. doors open on a helicopter).

While the most sophisticated rugged vibration isolated computer system available, the MaxRax 9210S is designed to be modular within the S3 chassis and easily serviced by the user or 3rd party technicians. Comprehensive documentation, training and expert guidance from MaxVision make servicing this unit straight forward and comfortable;; or, if you prefer, MaxVision will provide expedited repair service anywhere DHL or Federal Ex-press provides delivery service. MaxVision offers extended service plans up to three years and works cooperatively with the customer to return them to service in the fastest possible manner.

MaxRax™ 9210S3

The MaxRax 9210S3 provides the following features:

- Two Dual Core AMD Opteron™ 2000 series processors
- Up to 12GB of main memory (Six 2GB 240-pin DDR2 DIMM sockets)
- Four drive removable 2.5" SATA magazine providing up to 640GB of HD total storage
- Support of ultra high-performance PCIe graphics board (choice of NVIDIA Quadro FX Series: 1500, 3500, 4500, and 5500)
- Second PCI v2.3 32-bit/33MHz slot available
- Double layer DVD burner (8.5GB)
- Rich standard I/O features including two Gigabit Ethernet, USB 2.0 (four rear, one front), integrated audio, and serial ports
- MaxVision's full range 400 Watt power supply supports 90 – 264VAC 50/60Hz and 115VAC 400Hz avionics power common to aircraft power systems
- MaxVision's integrated 28VDC converter will accept 22 – 30VDC input power common to ground vehicles and helicopters
- Environmental 0 - 50°C* operating, -40 - 70°C non-operating, 5 - 95% relative humidity non-condensing, Operation up to 10,000 feet



The MaxRax is a rugged, vibration isolated server rack mount. Each of the 3 units is removable

Each MaxRax unit comes with easily removable hard drive magazines



The MaxRax's Input Output is fully loaded with additional cable retainers to prevent loss of connection

* with select graphics cards
The MaxRax S3 Vibration Isolation Chassis provides the following features:

- Mechanical vibration isolation for three MaxRax 9210S CPU Modules tuned to a customer-defined operational environment (i.e. specific ground vehicle or aircraft)
- MaxVision's extreme "Baghdad" air filtration system which filters nearly all small particle dust without impeding air cooling fans. Special filter is removable without tools and can be washed in the sink then retreated with lubricant.
- Total weight of MaxRax 9210S3 (3 CPU Modules in one S3 chassis) is approximately 60 lbs.
- Roller transit case provides water-tight drop protection when shipped or carried (total weight of MaxRax 9210S3 in transit case is 98 lbs.)



The MaxRax also includes MaxVision's Input & Output Bagdad filtration system protecting your server from dirt and dust even while not operating.



As with all of MaxVision's products, we offer a water/air tight Pelican transit case with additional custom foam configuration for even more protection against damage.