

# intel<sup>®</sup> Xeon<sup>®</sup> Server

## 2U Twin Intel Nehalem Server



### "High Performance, High Density"

The HPC E2812W is a mid-range high performance workhorse offering extreme densities in rack mount form factors. This Intel Xeon Nehalem based platform is an ideal choice for high density compute clusters, storage, database clusters and web farms. This platform has a unique advantage of packing eight Intel Xeon Nehalem processors in a 2U package with redundant power supply and optional integrated InfiniBand DDR ConnectX ports. E2812W provides the best performance at a very affordable price with the combination on the latest IO, network, memory and power efficient technologies. E2812W features the latest Intel Xeon Nehalem 5500 series microprocessors from Intel with QuickPath Interconnect (QPI) technology, DDR3 memory, PCI-Express and SAS/SATA storage. It makes an ideal platform for a large scale compute clusters and InfiniBand applications.



### Highlights

- > Up to eight Intel Xeon Nehalem 5500 series quad core processors with QuickPath Interconnect (QPI)
- > Up to 96GB of DDR3 memory in 12 DIMMS per node
- > Extreme compute density
- > Industry standard systems management with IPMI 2.0
- > Integrated optional InfiniBand DDR ConnectX port
- > Four x16 expansion slot

#### Processor:

- > Supports Eight sockets Intel<sup>®</sup> Xeon<sup>®</sup> 5500 quad core Nehalem processors

#### Chipset:

- > Intel<sup>®</sup> 5520 Chipset with QPI up to 6.4GT/s

#### System Memory:

- > Support up to 96GB of registered ECC DDR3 SDRAM
- > Supports 1333 MHz 1066 MHz & 800MHz Memory

#### Expansion Slots:

- > Two PCI Express x16 slot on riser (One PVI Express x16 slot per node)

#### Networking:

- > Four (8) 10/100/1000 Base T LAN ports (Intel<sup>®</sup> 82576) (Two per node)
- > Two Infiniband Ports (Optional one per node)
  - Mellanox ConnectX DDR single port (QSFP port) or
  - Mellanox Infinihost III DDR single port (CX4 port)

#### Graphics:

- > Two Matrox G200eW graphics controller (One per node)

#### Integrated Hardware Monitor:

- > CPU thermal and voltage monitor support & indicator
- > Hardware Monitor IC
- > Supports Windows and Linux based hardware monitor
- > Fan speed control and monitoring
- > Chassis Intrusion

### Systems Management (optional):

- > HPC Systems Server Management Daughter card Supports IPMI 2.0 specifications
- > Integrated KVM with dedicated LAN
- > Command Line Interface (CLI), Web Based, or Customized Remote Management Software
- > Virtual Media Over LAN (Virtual USB Floppy/CD and Drive Redirection)
- > LAN Alert-SNMP Trap
- > Event Log
- > Remote Power Control
- > Support RMCP & RMCP+ Protocols

### Storage:

- > Twelve hot-swap SATA 2.0 HDD (Three drives per node)
- > Six (6) SATA 2.0 ports from Intel ICH10R
- > Integrated RAID for Windows (0,1,5,10) & Linux (0,1,10)
- > USB only CD or DVD drive

### Chassis:

- > 2U form factor
- > 437mm x 88mm x 705mm (W x H x D) 17.2" x 3.5" x 28.5" inches (W x H x D)
- > Pluggable modular design. Easy access to motherboard, power supplies & hard disks

### Power Supply:

- > High efficiency (80+) 1200W Gold Levelcertified redundant power supply with PMBus support
- > Hot swap power supply
- > 100V-240V AC input
- > Independent power control for each node

### Front Panel:

- > Power, ID, NMI and Reset switch
- > Power LED, HDD LED, LAN activity LED, IB LED, ID LED and system overheat LED

### Rear Panel:

- > Four VGA ports (One per node)
- > Eight USB 2.0 ports (Two per node)
- > Eight RJ45 Ethernet ports (Two per node)
- > Four DB9 Serial Port (One per node)

### Operating System:

- > Red Hat® Enterprise Linux®
- > SUSE LINUX Enterprise Server
- > Microsoft® Windows® Server Enterprise & Standard Editions
- > Sun® Solaris
- > CentOS

### System Operating Environment:

- > Operating Temperature Range: 10 - 35°C
- > Non-Operating Temperature Range: -40 - 70°C
- > Humidity Range: 8 - 90% non-condensing

### Service and Support:

- > Two years standard parts and labor warranty
- > Optional on-site maintenance and support services available

### Ideal For:

#### Enterprise Computing:

- > Web applications
- > Database clusters
- > Web/Application Development
- > Anti-Virus, E-mail
- > Storage Area Network / file systems
- > Web farms

#### High Performance Computing:

- > Scientific Computing
- > EDA
- > Forecasting and simulation - finance, weather
- > Oil & Gas
- > CFD applications
- > MCAD & MCAE

## HPC Systems, Inc.

48009, Fremont Blvd, Fremont, CA. 94538 (888) SALE-HPC  
info@hpcsystems.com

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