

LSSTM 200

LIQUID SUBMERGED SERVER



Relentless Performance

Through Liquid Submersion

The world's first rack-mounted, total-liquid-submersion-cooled server.

The LSS 200 system line offers speed, stability and savings.



Features

- Guaranteed sustained overclocking performance
- Significant savings on data center air conditioning expense
- Easy integration into existing compute environments
- Improved density shrinks data center footprint
- Core CoolantTM keeps components cooler, improving reliability



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Processor Support

- 2 x FC-LGA 1366 sockets
- Intel® 5500 and 5600 series Xeon CPUs
- QPI 4.8GT/s, 5.86GT/s and 6.4GT/s

Chipset

- Intel 5520 chipset
- Intel ICH10R

Memory

- 6 x DDR3 slots per CPU
- Registered, unregistered, non-ECC and ECC
- DIMMs are supported
- Up to 384GB configurations available, pending qualification

Network Connectivity

- Embedded Intel 82576 PHYs with Intel I/O acceleration technology
- 2 x 1.0Gb/s LAN
- 10Gb/s Ethernet optional
- 40Gb/s Infiniband optional

Storage

- 6 x 3.0Gb/s SATA II ports
- Mounting area for up to 6 x 2.5 inch SSDs
- 6-drive RAID 0, 1 and 10 possible

Graphics

- Graphics card support via PCIe connector
- Integrated Matrox motherboard graphics

Power

- 1 x 750W PSU
- Up to 2 x 6+2-pin supplemental graphics card power connectors available

Serial Port

- 1 x Fast UART 16550 serial port

USB

- 2 x USB 2.0 ports

PCIe 2.0, x16 Expansion Slot

- 1 x PCIe 2.0, x16 available
- 90 degree riser card allows for full-sized cards
- Support for NVIDIA® Tesla, Quadro or GeForce GPU cards
- Support for AMD® Radeon or FirePro GPU cards
- Support for Fusion-io® and other flash storage
- Support for Solarflare®, Endace® and other network cards

Management Hardware

- Onboard Windbond WPCM450 with integrated baseboard management controller (BMC)
- Baseboard management module with IPMI
- 2.0 serial-over-LAN support via dedicated 10/100Mb/s management NIC
- IPMI 2.0 with hardware encrypted support through a dedicated LAN connection
- Secure Socket Layer (SSL)
- Dynamic Host Configuration Protocol (DHCP)
- Telnet Access, SSH support, SMASH CLP (command line)
- Remote reboot
- Remote power on/off, PEF configuration

Custom Cooling

- Patented full liquid submersion of all active components is 1350 times more effective than air at removing heat
- Core Coolant dielectric liquid is clear, odorless, biodegradable and safe
- A variety of remote heat exchange options are possible

Form Factor

- 6.3inch x 16.7inch motherboard
- Liquid submersion 2.6 inch x 7.0 inch x 32 inch custom chassis
- Allows for 8 x servers per 5U shelf