# Cirrascale.

## Cirrascale GB Series GPGPU Blade Server Solutions

Enabling Breakthrough GPGPU Performance, Energy Efficiency and Density for the Datacenter

Until now, there has never been a GPGPU blade server solution available with this amount of density, performance and scalability. Cirrascale is proud to introduce the new GB blade server series for its flagship BladeRack<sup>®</sup> 2 Series platforms.

Our GPU blade servers utilize the latest technology available from our graphics card partners such as GIGABYTE<sup>™</sup>, NVIDIA<sup>®</sup> and ATI. By integrating the latest technologies before our competition, Cirrascale delivers GPU blade servers that are scalable, reliable and offer the best price/performance value in the industry.

Cirrascale GPU blades are the ideal solution for GPU-based high performance computing needs. Solutions can be tailored for use with computational fluid dynamics, seismic data processing, life sciences, electronic design automation and more.

Our GPU blades perform at the highest levels thanks to the award-winning Vertical Cooling Technology contained within the BladeRack 2 XL and FL platforms. Cirrascale's Patented Vertical Cooling Technology creates a high velocity stream of cool air driving away hot air created by high performance components like GPU's and power supplies. Other blade server and storage installations utilize traditional front to back cooling, which creates hot and cold aisles in the data center as well as causing hot spots that can lead to system failure.

Additionally, with the recent introduction of the Intel<sup>®</sup> Xeon<sup>®</sup> E5-1600 and E5-2600 processor families, Cirrascale's BladeRack 2 Series GPU blades are designed to give customers breakthrough performance, higher density and larger energy savings. Delivering the technologies needed to replace an inefficient and aging installed-base, Cirrascale's latest GB Series blades facilitate higher utilization while providing amazing computing performance.

With these new products, Cirrascale is facilitating data center transformation by providing scalable performance and reduced power consumption. Customers deploying next generation scale-out infrastructure benefit from the combination of Intel's latest processor platforms with Cirrascale's Vertical Cooling Technology, enabling extreme density and unmatched efficiency and reliability.

### About Cirrascale

Cirrascale Corporation is a premier provider of blade-based GPGPU, cloud computing and storage infrastructure for conventional and containerized data centers. Cirrascale leverages its patented Vertical Cooling Technology to provide the industry's most energy-efficient standardsbased platforms with the lowest possible total cost of ownership in the densest form factor. Cirrascale sells to large-scale infrastructure operators, hosting and managed services providers, Cloud Service Providers, and HPC users. Cirrascale also licenses its award winning technology to partners globally.

### Contact Us Today

To learn more about Cirrascale and its unique data center infrastructure solutions, please visit us on our website at www.cirrascale.com or contact one of our Account Managers by calling (888) 942-3800.



### **GB1400 Series GPGPU Blade Server**



### Features at a Glance

- Dual 8-core Intel<sup>®</sup> Xeon<sup>®</sup> E5-2600
   Series Processors
- Supports Latest GPU Cards
- Up to 256GB of DDR3 Memory
- Up to 8TB of SATA Storage
- Two Gigabit Ethernet Ports
- Maximum 72 GPUs per BladeRack

#### Processor:

Options include two of the following: Intel® Xeon® processor E5-26xx product family

- E5-2670 2.6GHz 115W 8-core
- E5-2680 2.7GHz 130W 8-core
- E5-2687W 3.1GHz 150W 8-core
- E5-2690 2.9GHz 135W 8-core

#### **Chipset:**

Intel C602 (Patsburg-A)

#### Memory:

Supports up to 256GB DDR3 Memory
8 DIMM Slots DDR3 1066/1333 UDIMM/ RDIMM ECC

#### Storage:

- 5 x SAS 3Gb/s
- 2 x SATA 6Gb/s Hard Drives

#### **Networking:**

• Intel Powerville I350 Network Controller (Dual GbE ports) with Management LAN

#### **Expansion Slots:**

- 1 x PCle x16 Gen3.0 x 16 throughput
- 1 x PCle x16 Gen3.0 x 8 throughput

• 1 x PCle x8 Gen2.0 x 1 throughput with SMC Daughter Card Riser

#### **Standard Interfaces:**

- 3 x USB 2.0 (2 external / 1 internal)
- On Management LAN
- 2 x RJ-45 LAN 1GbE
- 1 x VGA
- 1 x COM

#### **Integrated Graphics:**

VGA Integrated in Nutovon BMC

#### Management and Monitoring:

• IPMI 2.0 using Nutovon BMC

#### **Operating Systems Supported:**

- Windows Server 2008
- Linux RHEL 6, CENTOS 6.2, SUSE
- 11SP2, UBUNTU 11.10

### **GB2400 Series GPGPU Blade Server**



### Features at a Glance

- Dual 8-core Intel<sup>®</sup> Xeon<sup>®</sup> E5-2600 Series Processors
- Supports Dual GPU Graphics Cards in Dedicated x16 Gen 2 slots
- Up to 512GB of DDR3 Memory
- Up to 16TB of SATA Storage
- Two Gigabit Ethernet Ports

#### • Maximum 72 GPUs per BladeRack

#### **Processor:**

Options include two of the following: Intel® Xeon® processor E5-26xx product family

- E5-2670 2.6GHz 115W 8-core
- E5-2680 2.7GHz 130W 8-core
- E5-2687W 3.1GHz 150W 8-core
- E5-2690 2.9GHz 135W 8-core

#### **Chipset:**

• Intel C602 (Patsburg-A)

#### Memory:

- Supports up to 512GB DDR3 Memory
- 16 DIMM Slots DDR3 1066/1333
   UDIMM/RDIMM ECC

#### Storage:

- 8 x SAS 3Gb/s
- 4 x SATA 3Gb/s Hard Drives

#### **Networking:**

• Intel Powerville I350 Network Controller (Dual GbE ports) with Management LAN

#### **Expansion Slots:**

- 1 x PCle x16 Gen3.0 x 16 throughput
- 1 x PCle x16 Gen3.0 x 8 throughput
- 2 x PCle x8 Gen3.0 x 4 throughput
- 1 x PCle x8 Gen2.0 x 1 throughput

#### **Standard Interfaces:**

- 6 x USB 2.0 (4 external / 2 internal)
- On Management LAN
- 2 x RJ-45 LAN 1GbE
- 1 x VGA
- 1 x COM

#### **Integrated Graphics:**

• VGA Integrated in ASPEED 2300

#### Management and Monitoring:

• IPMI 2.0 using ASPEED 2300

#### **Operating Systems Supported:**

- Windows Server 2008
- Linux RHEL 6, CENTOS 6.2, SUSE
- 11SP2, UBUNTU 11.10

### **GB3400 Series GPGPU Blade Server**



#### Features at a Glance

- Dual 8-core Intel<sup>®</sup> Xeon<sup>®</sup> E5-2600 Series Processors
- Supports Quad GPU Graphics Cards in Dedicated PCIe x16 Gen 2 slots
- Up to 512GB of DDR3 Memory
- Up to 8TB of SATA Storag
- Two Gigabit Ethernet Ports
- Maximum 96 GPUs per BladeRack

#### Processor:

Options include two of the following: Intel® Xeon® processor E5-26xx product family

- E5-2670 2.6GHz 115W 8-core
- E5-2680 2.7GHz 130W 8-core
- E5-2687W 3.1GHz 150W 8-core
- E5-2690 2.9GHz 135W 8-core

#### **Chipset:**

• Intel C602 (Patsburg-A)

#### Memory:

- Supports up to 512GB DDR3 Memory
  8 DIMM Slots DDR3 1066/1333 UDIMM/
- RDIMM ECC

#### Storage:

- 4 x SAS 3Gb/s
- 2 x SATA 6Gb/s Hard Drives

#### **Networking:**

• Intel Powerville I350 Network Controller (Dual GbE ports) with Management LAN

#### **Expansion Slots:**

- 4 x PCle x16 Gen3.0 x 16 throughput
- 1 x PCle x16 Gen3.0 x 8 throughput
- 2 x PCI 32-bit

#### **Standard Interfaces:**

- 11 x USB 2.0 (4 external / 6 internal)
- On Management LAN
- 2 x RJ-45 LAN 1GbE
- 1 x VGA
- 1 x COM

#### **Integrated Graphics:**

• VGA Integrated in ASPEED 2300

#### Management and Monitoring:

• IPMI 2.0 using ASPEED 2300

#### **Operating Systems Supported:**

- Windows Server 2008
- Linux RHEL 6, CENTOS 6.2, SUSE
- 11SP2, UBUNTU 11.10

### **GB5400 Series GPGPU Blade Server**



#### Features at a Glance

- Dual 8-core Intel<sup>®</sup> Xeon<sup>®</sup> E5-2600
   Series Processors
- Supports 8 GPU Graphics Cards in Dedicated PCIe x16 Gen 2 slots
- Up to 512GB of DDR3 Memory
- Up to 8TB of SATA Storage

#### • Two Gigabit Ethernet Ports

• Maximum 96 GPUs per BladeRack

#### **Processor:**

Options include two of the following: Intel® Xeon® processor E5-26xx product family

- E5-2670 2.6GHz 115W 8-core
- E5-2680 2.7GHz 130W 8-core
- E5-2687W 3.1GHz 150W 8-core
- E5-2690 2.9GHz 135W 8-core

#### **Chipset:**

• Intel C600 (Patsburg-A)

#### Memory:

- Supports up to 512GB DDR3 Memory
- 16 DIMM Slots DDR3 1066/1333
- UDIMM/RDIMM ECC

#### Storage:

- 8 x SAS 3Gb/s
- 2 x SATA 3Gb/s Hard Drives

#### **Networking:**

• Intel Powerville I350 Network Controller (Dual GbE ports) with Management LAN

#### **Expansion Slots:**

- 1 x PCle x16 Gen3.0 x 16 throughput
- 1 x PCle x16 Gen3.0 x 8 throughput
- 2 x PCle x8 Gen3.0 x 4 throughput
- 1 x PCIe x8 Gen2.0 x 1 throughput

#### **Standard Interfaces:**

- 6 x USB 2.0 (4 external / 2 internal)
- On Management LAN
- 2 x RJ-45 LAN 10GbE
- 1 x VGA
- 1 x COM

#### **Integrated Graphics:**

• VGA Integrated in ASPEED 2300

#### Management and Monitoring:

• IPMI 2.0 using ASPEED 2300

#### **Operating Systems Supported:**

- Windows Server 2008
- Linux RHEL 6, CENTOS 6.2, SUSE
- 11SP2, UBUNTU 11.10



### **Custom Configurations**

Cirrascale supports multiple configurations and can tailor any system to your specific needs. If you have questions, please contact us today at (888) 942-3800 and ask to speak with a Cirrascale Account Manager.

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