

# QuantaGrid D51BV-2U



Energy Efficient  
2-Socket GPU/  
Intel® Xeon Phi™  
Server

# Quanta®

QuantaGrid D51BV-2U is an energy efficient 2-socket GPU/ Xeon Phi™ server derived from D51B-2U. It supports up to two PCIe x16 FHFL slots for GPU/ Xeon Phi™ cards. It is ideal for 3D rendering, technical computing and mission-critical applications.

#### Greener and More Powerful

Powered by Intel® Xeon® processor E5-2600 v3 product family and the DDR4 memory technology, it allows owners to upgrade computing performance without compromising power consumption. Also with QCT's enhanced thermal and power design, the server can operate under 35°C ambient temperature without throttling even if a fan rotor fails. This allows you to save unnecessary datacenter cooling cost and achieve higher DCIE (Data center infrastructure efficiency) value.

#### Double the GPU/ Xeon Phi™ Support for HPC, Mission-Critical Applications

To succeed in a competitive world, customers need computing results with greater precision and speed. The QuantaGrid D51BV-2U supports up to two PCIe x16 FHFL slots for GPU/ Xeon Phi™ cards. With nVidia's GPGPU and Intel's Xeon Phi™ solutions, this server offers excellent VDI performance with rapid data accessibility from an array of mobile and tablet devices and enables smooth 3D virtual desktop rendering, which cannot be achieved with traditional VDI.

#### Full-Featured Design for Demanding Storage and Computing Workload

With 24 DIMM slots, QuantaGrid D51BV-2U offers non-latency support to virtualization environments which require maximum memory capacity.

#### Flexible and Scalable I/O options

QuantaGrid D51B-2U provides flexible I/O scalability for today's diverse data center application requirements. It features OCP LAN mezzanine card solutions in addition to dual GbE or 10GbE LAN on Motherboard (LoM). With various controller vendors and different speed and technology options, customers can choose from GbE to 56GbE bandwidth, copper to fiber-optic cabling, basic Ethernet function to FCoE and ISCSI SAN connectivity. The onboard SAS controller offers multiple Quanta SAS mezzanine card options with different RAID levels and data transfer bandwidth so customers can tailor the SAS controller for specific application needs.

#### About Quanta Cloud Technology (QCT)

Quanta Cloud Technology (QCT) provides advanced hardware systems to cloud datacenters worldwide. Product lines include servers, storage, network switches, and integrated rack systems. QCT customers want the same innovative cloud hardware technology in use by hyperscale cloud datacenter operators, but in off-the-shelf SKUs with global services. QCT sells cloud hardware that delivers hyperscale performance, efficiency and advanced engineering, with flexible product configuration, rack integration, performance tuning and engineering consulting services to help customers deploy optimized cloud solutions for their unique cloud workloads.

QCT's parent is Quanta Computer, Inc., a Fortune Global 500 company with more than 100,000 employees located at engineering, manufacturing and services facilities worldwide. <http://www.QuantaQCT.com>



# QuantaGrid D51BV-2U



Build a more secure Cloud with Intel® Technology.

Form Factor	2U Rack Mount
Dimensions	W x H x D (inch): 17.6 x 3.44 x 29.33 W x H x D (mm): 447 x 87.5 x 745
Expansion Slot	Two x16 PCIe 3.0 double-width FHFL Two x8 PCIe 3.0, LP MD-2 One x8 PCIe 3.0 OCP LAN mezzanine slot
Storage	<i>Option 1:</i> 10x 3.5" hot-plug SATA 6Gb/s <i>Option 2:</i> 12x 3.5" hot-plug (require additional SAS/ RAID)
Front I/O	2x USB 2.0 ports
Power Supply	1+1 High efficiency redundant hot-plug PSU (default with one PSU only; detailed PSU options please refer to "ordering info" or "CCL")
Fan	4x dual rotor fans (7+1 redundant)
System Magement	IPMI v2.0 Compliant, on board "KVM over IP" support
Operating Environment	Operating temperature: 5°C to 35°C (41°F to 95°F) Non-operating temperature: -40°C to 65°C (-40°F to 149°F) Operating relative humidity: 50% to 85%RH. Non-operating relative humidity: 20% to 90%RH
Processor	Processor Type: Intel® Xeon® processor E5-2600 v3 product family Max. TDP Support: 135W (145W with limited conditions) Number of Processors: 2 Internal Interconnect: 6.4 / 8.0/ 9.6 GT/s L3 Cache: Up to 45MB
Chipset	Intel® C610
Memory	Total Slots: 24 Capacity: Up to 768GB RDIMM/ 1536GB LRDIMM Memory Type: 2133 MHz DDR4 RDIMM/ LRDIMM Memory Size: 32GB, 16GB, 8GB RDIMM/ 64GB, 32GB LRDIMM
Storage Controller	Onboard: Intel® 610: 10x SATA 6Gb/s ports; SATA RAID 0, 1, 10 Optional Controller: QCT LSI® 2308 6Gb/s SAS mezzanine, RAID 0,1,10 QCT LSI® 3008 12Gb/s SAS mezzanine, RAID 0,1,10 QCT LSI® 2208 6Gb/s RAID mezzanine, RAID 0, 1, 5, 10 (RAID 6 requires additional RAID key)
Network Controller	LOM: <i>Option 1:</i> Intel® I350 dual-port 1 GbE, Dedicated 1 GbE management port <i>Option 2:</i> Intel® X540 dual-port 10GbE BASE-T, Dedicated 1 GbE management port Optional NIC: QCT Intel® I350 dual-port OCP mezzanine QCT Intel® X540 dual-port 10GbE BASE-T OCP mezzanine QCT Intel® 82599ES dual-port 10G SFP+ OCP mezzanine (more options refer to the CCL)
Onboard Storage	Support 2x SATADOM
Video	Integrated AST2400 with 8MB DDR3 video memory
Rear I/O	2x USB 3.0 ports, 1x VGA port, 1x RS232 serial Port, 2x 1 GbE or 10G BASE-T RJ45 port, 1x GbE RJ45 management port, 1x ID LED, 1x Port80 Debug Port (optional)
TPM	Yes (option)



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