

# QuantaGrid D51BP-1U

Energy Efficient 2-Socket  
Server with Extreme  
Storage IOPS



Rear view

QuantaGrid D51BP-1U is a revolutionary 1U rackmount server that dramatically increases data storage IOPS. All ten 2.5" front access drive bays support hot-pluggable PCIe I/O interface. Owners can tailor system storage architecture by mixing traditional hard disk drives and Non-Volatile Memory Express (NVMe) SSD.

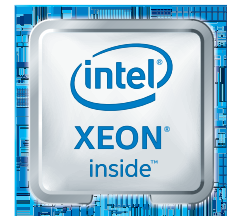
## Greener and More Powerful

Powered by Intel® Xeon® processor E5-2600 v3, v4 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 to achieve higher DCIE (Data center infrastructure efficiency) value.

## Ultra Low Latency NVMe Solution

NVMe is an innovative host controller interface specification for SSDs to be accessed through the PCIe bus. The data bandwidth increases to five times the traditional SATAIII interface (6Gb/s compared with 31.5Gb/s of PCIe3.0 x4), and the new interface significantly reduces the latency caused by register access. This solution efficiently supports multi-core architectures and SR-IOV for data-intensive virtualization workloads. On QuantaGrid D51BP-1U, all ten 2.5" front access drive bays support hot-pluggable PCIe I/O interface. Owners can combine traditional hard disk drives and NVMe-based SSDs to tailor system storage architecture to their needs.

- Ultra Low Latency NVMe Solution
- Greener and More Powerful
- Flexible and Scalable I/O Options



## Flexible and Scalable I/O Options

QuantaGrid D51BP-1U 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 motherboards (LoM). With various controller vendors and different speed and technology options, customers can choose from 1GbE to 56GbE bandwidth, copper or fiber-optic cabling, basic Ethernet function or FCoE and ISCSI SAN connectivity. The onboard SAS controller offers multiple QCT SAS mezzanine card options with different RAID levels and data transfer bandwidth so customers can tailor the SAS controller for specific application needs.

## About QCT

QCT (Quanta Cloud Technology) is a global datacenter solution provider extending the power of hyperscale datacenter design in standard and open SKUs to all datacenter customers.

Product lines include servers, storage, network switches, integrated rack systems and cloud solutions, all delivering hyperscale efficiency, scalability, reliability, manageability, serviceability and optimized performance for each workload.

QCT offers a full spectrum of datacenter products and services from engineering, integration and optimization to global supply chain support, all under one roof.

The parent of QCT is Quanta Computer Inc., a Fortune Global 500 technology engineering and manufacturing company.

<http://www.QCT.io>

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Found at: [www.QCT.io/wheretobuy](http://www.QCT.io/wheretobuy)

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QCT authorized partner

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<b>Processor</b>	<b>Processor Type:</b> Intel® Xeon® processor E5-2600 v3, v4 product family <b>Max. TDP Support:</b> 135W (145W with limited conditions) <b>Number of Processors:</b> 2 <b>Internal Interconnect:</b> 6.4 / 8.0/ 9.6 GT/s <b>L3 Cache:</b> Up to 45MB
<b>Chipset</b>	Intel® C610
<b>Memory</b>	<b>Total Slots:</b> 20 <b>Capacity:</b> Up to 640GB RDIMM Up to 1280GB LRDIMM <b>Memory Type:</b> 2133 MHz DDR4 RDIMM/ LRDIMM <b>Memory Size:</b> 32GB, 16GB, 8GB RDIMM 64GB, 32GB LRDIMM
<b>Network Controller</b>	<b>LOM:</b> Option 1: Intel® I350 dual-port 1 GbE Dedicated 1 GbE management port Option 2: Intel® X540 dual-port 10GbE BASE-T Dedicated 1 GbE management port <b>Optional NIC (more options refer to the CCL):</b> Please refer to our Compatible Component List for more information
<b>Storage Controller</b>	<b>Onboard:</b> (2) SATADOM <b>Optional Controller (more options refer to the CCL):</b> Please refer to our Compatible Component List for more information
<b>Onboard Storage</b>	(2) SATADOM
<b>Video</b>	Integrated AST2400 with 8MB DDR3 video memory
<b>Rear I/O</b>	(2) USB 3.0 ports (1) VGA port (1) RS232 serial Port (2) 1 GbE or 10G BASE-T RJ45 port (1) GbE RJ45 management port (1) ID LED (1) Port80 Debug Port (optional)
<b>TPM</b>	Yes (With TPM 1.2/ 2.0 option)
<b>Form Factor</b>	1U Rack Mount
<b>Dimensions</b>	<b>W x H x D (inch):</b> 17.244 x 1.7 x 29.21 <b>W x H x D (mm):</b> 438 x 43.2 x 742
<b>Storage</b>	(10) 2.5" hot-plug (support PCIe-based interface)
<b>Expansion Slot</b>	Option 1 (default): (1) PCIe Gen3 x8 SAS mezzanine slot (1) PCIe Gen3 x8 OCP LAN mezzanine slot (2) PCIe Gen3 x8 LP MD-2 Option 2: (this sku does not support any 2.5" PCIe SSD) (1) PCIe Gen3 x8 SAS mezzanine slot, (1) PCIe Gen3 x8 OCP LAN mezzanine slot, (2) PCIe Gen3 x16 LP MD-2
<b>Front I/O</b>	None
<b>Power Supply</b>	1200W AC, Redundant, 86 mm (Platinum) 800W AC, Redundant, 86 mm (Platinum) 750W AC, Redundant, 86 mm (Gold) 500W AC, Redundant, 86 mm (Platinum) 470W AC, Redundant, 86 mm (Gold)
<b>Fan</b>	(6) dual rotor fans (11+1 redundant)
<b>System Management</b>	IPMI v2.0 Compliant, onboard "KVM over IP", Quanta System Manager (QSM)/ Quanta DataCenter Manager(QDCM) (optional) support
<b>Operating Environment</b>	Operating temperature: 5°C to 40°C (41°F to 104°F) Non-operating temperature: -40°C to 65°C (-40°F to 149°F) Operating relative humidity: 20% to 85%RH Non-operating relative humidity: 10% to 90%RH
<b>Weight (Max. Configuration)</b>	20.81 (kg) 45.88 (lbs)



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