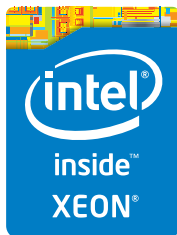# QuantaGrid
D51B-2U

Quanta ®

Full-Featured
Energy Efficient
2-Socket Server

intel inside™ XEON®

QuantaGrid D51B-2U is a general-purpose rackmount server designed for optimal performance and power efficiency. It supports up to 1.5 TB highly scalable memory capacity and up to 12x 3.5" or 24x 2.5" hot-swappable HDD for complex and demanding workloads, such as mail-server, database, e-commerce and high-performance computing (HPC).

Greener and More Powerful

Powered by the Intel® Xeon® processor E5-2600 v3 product family and DDR4 memory technology, the QuantaGrid D51B-2U allows owners to upgrade computing performance without overextending power consumption. With QCT's enhanced thermal design, the server can operate under ambient temperatures as high as 40˚C. This allows owners to save unnecessary costs associated with datacenter cooling needs and achieve higher data center infrastructure efficiency (DCIE) value.

Rear view

Full-Featured Design for Demanding Storage and Computing Workload

With 24 dual in-line memory (DIMM) slots, QuantaGrid D51B-2U offers non-latency support to virtualization environments that require the maximum memory capacity. In addition to 12x 3.5" or 24x 2.5" front-access, hot-swappable HDDs, the D51B-2U also has two optional 2.5" PCIe (NVMe) SSD bays and two optional 2.5" SATA HDD bays on the rear side for extra caching or OS support without sacrificing storage 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 ISCI 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 D51B-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	*Option 1 (default):*
	One x8 PCIe 3.0 SAS mezzanine slot
	Two x8 PCIe 3.0, LP MD-2
	One x8 PCIe 3.0 FHHL
	One x16 PCIe 3.0 FHHL
	One x8 PCIe 3.0 OCP LAN mezzanine slot
	Option 2:
	One x16 PCIe 3.0, LP MD-2
	Two x8 PCIe 3.0 FHHL
	One x16 PCIe 3.0 FHHL
	One x8 PCIe 3.0 OCP LAN mezzanine slot
Storage	*Option 1:* 24x 2.5" hot-plug, 2x optional rear 2.5" hot-plug SATA/SAS, 2x optional rear 2.5" hot-plug PCIe SSD
	Option 2: 12x 3.5" hot-plug, 2x optional rear 2.5" hot-plug SATA/SAS, 2x optional rear 2.5" hot-plug PCIe SSD
Front I/O	2.5"/ 3.5" SKU: 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	Operating temperature: 5℃ to 40℃ (41°F to 104°F)
Environment	Non-operating temperature: -40℃ to 70℃ (-40°F to 158°F)
	Operating relative humidity: 50% to 85%RH
	Non-operating relative humidity: 20% to 90%RH
Weight	Net weight: 28.41 Kg (62.5 lb)
Processor	Processor Type: Intel® Xeon® processor E5-2600 v3 product family
	Max. TDP Support: 145W
	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:
	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
	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 (with TPM 1.2/2.0 option)

Quanta
Optimize Your Datacenter