# QuantaGrid SD1Q-1ULH

Balanced Computing
Performance with Low
Power Consumption







- Ultra Dense 1U Storage Server Powered by Intel® Xeon® Processor D-1531
- Embedded Dual 10GbE SFP+ Ports
- Sophisticated 3 Tiers Hybrid Architecture
- Hot-Swappable and Easy Service



The SD1Q-1ULH storage server is embedded with 12 hot-swappable 3.5" HDDs, six 7mm SATA SSDs and one PCle 2280 M.2 in a 1U-height chassis. Powered by the Intel® Xeon® D-1531 SoC processor, (with 45W TPD support), the SD1Q-1ULH system delivers balanced computing performance with low power consumption. It provides both extreme storage density and exceptional power efficiency to cloud data-centers. hyper-scale SD1Q-1ULH system is a perfect system for software-defined-storage related applications, such as Ceph. It helps IT managers optimize overall rack and data-center space. With its innovative hot-swappable drive design, SD1Q-1ULH allows service technicians to service drives with minimal efforts and little to no downtime.

# Embedded Dual Ports 10GbE SFP+ LAN

With 10GbE-KR dual ports embedded on mother board, the SD1Q-1ULH provides outstanding outside connecting performance. It also features OCP LAN mezzanine card solutions for additional requirements. With various controller and different speed options, customers can tailor the SD1Q-1ULH to their specific application needs.

## Sophisticated Hybrid Architecture

Cache memory has become a must-have in software defined storage. As in related virtualization applications, cache memory also signifi-

cantly boosts system performance and IOPS. The SD1Q-1ULH is equipped with one PCIe M.2 2280 SSD on board and four SATA SSDs in system front side. In addition, there are 12pcs 3.5" large capacity HDDs for main storage access purposes. Thus, the SD1Q-1ULH has an ideal hybrid architecture system for tiered storage planning; it optimizes SSDs for accelerating IOPS and throughput, whiel keeping the large data storage capacity of HDDs.

#### Hot-Swappable and Easy Service

The SD1Q-1ULH is designed with sophisticated architecture to support 12 hot-swappable hard drives within a 1U chassis, providing optimized rack density and delivering non-disruptive on-site service.

With its QCT patented design, inner cable chain and HDD carrier, the SD1Q-1ULH is very convenient for servicing and significantly reduces time spent on system deployment. No external cable management arm is required on the back of the rack and the HDDs are easily accessible without opening the top cover or disassembling the whole system.

## **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

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Processor	Processor Type: Intel® Xeon® Processor D-1531, SoC 6cores, 2.2GHz
	Max. TDP Support: 45W
	Number of Processors: 1
	L3 Cache: Up to 9MB
Memory	<b>Memory Type:</b> 2133/1866/1600 MHz DDR4 RDIMM
	Total Slots: 4
	Capacity: Up to 128GB RDIMM
	Memory Size: 32GB, 16GB, 8GB RDIMM
Network	LOM: Intel® X552 Dual Ports 10Gb SFP+
Controller	Optional NIC (more options refer to the CCL):
	QCT Intel® l350 dual-port OCP mezzanine
	QCT Intel® X540 dual-port 10GbE BASE-T OCP mezzanine
	QCT Intel® 82599ES dual-port 10G SFP+ OCP mezzanine
	QCT Mellanox CX3PRO dual-port 10G SFP+ OCP mezzanine
Storage	Onboard: (2) SATA 6Gb/s ports
Controller	Optional Controller (more options refer to the CCL):
	QCT LSI® 3008 12Gb/s SAS mezzanine, RAID 0,1,10 (option)
	QCT LSI® 3108 12Gb/s RAID mezzanine, RAID 0, 1, 5, 10. RAID 6 with
	additional RAID key (option)
<b>Onboard Storage</b>	(1) PCIe 2280 M.2 SSD
Video	Integrated AST2400 with 8MB DDR3 video memory
Rear I/O	(1) USB 3.0 ports
	(1) VGA port
	(1) RS232 serial Port
	(2) 10GbE SFP+ Ports
	(1) GbE RJ45 management port
TPM	TPM 2.0
Form Factor	1U Rack Mount
Dimensions	<b>W</b> x H x D (inch): 17.6 "x 1.7' x 35"
	<b>W</b> x H x D (mm): 448.2 x 43.2 x 881
Storage	(12) 3.5"/2.5" Hot-Swappable 12Gb/s SAS HDD/SSD or 6Gb/s SATA HDD/SSD
	(4) 2.5" Hot-Swappable 7mm 6Gb/s SATA SSD
	(1) PCIe 2280 M.2 SSD
	(2) 2.5" 7mm 6Gb/s SATA SSD for OS
Expansion Slot	(1) OCP Mezz 1Gb/10Gb SFP+/10GBaseT
	(1) PCIe x8 G3 Slot for SAS Mezz Card
Front I/O	(1) USB 2.0 port
Power Supply	400W Platinum PSU, 1+1 redundant power supplies, 100- 240V AC
Fan	(5) 40x56mm Dual rotor fan
System	IPMI v2.0 Compliant, onboard "KVM over IP," Quanta System Manager (QSM)
Management	
Operating	Operating temperature: 5°C to 35°C (41°F to 95°F)
Environment	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
Maiolet (Niles)	
Weight (Max. Configuration)	28.5 Kg



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