QuantaGrid D54Q-2U

Scale Ahead for the Workload of Tomorrow

- **Ultimate resilience and scalability with up to 10x PCIe 5.0 expansions**

- **Optimized for AI acceleration: Support up to 2x dual-width accelerators in 2U system**

- **Support All 24x NVMe U.2 or E1.S as hot-tier storage, targeting HPC and enterprise workloads**

About QCT

Quanta Cloud Technology (QCT) is a global datacenter solution provider. We combine the efficiency of hyperscale hardware with infrastructure software from a diversity of industry leaders to solve next-generation datacenter design and operation challenges. QCT serves cloud service providers, telecoms and enterprises running public, hybrid and private clouds.

Product lines include hyper-converged and software-defined datacenter solutions as well as servers, storage, switches, integrated racks with a diverse ecosystem of hardware component and software partners. QCT designs, manufactures, integrates and services cutting edge offerings via its own global network. The parent of QCT is Quanta Computer, Inc., a Fortune Global 500 corporation.
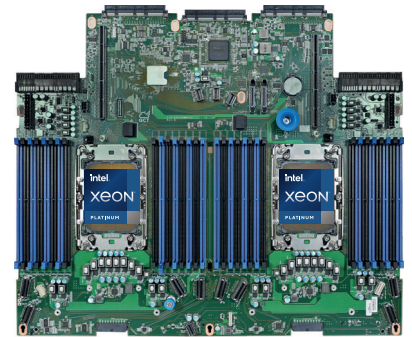
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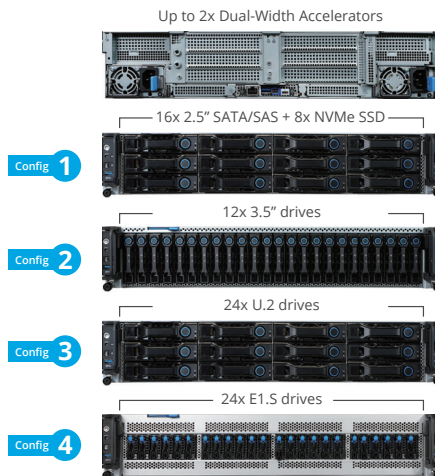
Powered by
4th Gen Intel® Xeon® Scalable Processors

Ultimate Compute Performance and Workload Driven Architecture

- Powered by dual 4th Gen Intel® Xeon® Scalable Processors with up to 4x UPI of 16 GT/sec CPU interconnect speed.
- Advanced system cooling architecture supporting the top bin 350W TDP CPU, both air and liquid cooling ready.
- Up to 10x PCIe Gen5 expansion slot and DC-SCM architecture to meet different configurations.
- Up to 2x dual-width accelerators supported for AI inference workloads.
- System optimized for cloud, enterprise, AI, HPC, network, security, and storage workloads.
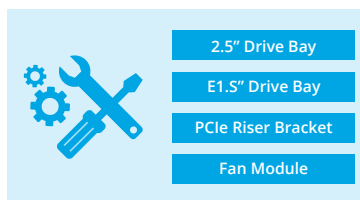

Scalability, Flexibility, Capability, All in 2U

Up to 2x Dual-Width Accelerators

16x 2.5" SATA/SAS + 8x NVMe SSD — Config 1

12x 3.5" drives — Config 2

24x U.2 drives — Config 3

24x E1.S drives — Config 4

- Built-in AI acceleration: support up to 2x dual-width accelerators in 2U systems.
- Flexible SKU options from 3.5", 2.5" to E1.S SKUs, all ready for PCIe Gen5.
- Optional rear NVMe as booting device, or high-speed NIC with optional HHHL slots.
- Up to 24x E1.S or U.2 drives, targeting high-performance hot-tier storage, HPC, and enterprise workloads.

Quick Deployment with Great Serviceability

2.5" Drive Bay
E1.S Drive Bay
PCIe Riser Bracket
Fan Module

- Tool-less, hot-swap designs for drive trays, riser brackets and fan modules.
- Easy service with OCP3.0 pull-tab & ejector without opening chassi.

Easy Management with Orqestra

- Secure and dynamic data administration of data center resources with Orqestra (QCT System Manager).
- Monitor up to 5000 devices per Orqestra module.

QuantaGrid D54Q-2U Specifications

Processor	**Processor Type:** 4th gen Intel® Xeon Scalable processor
	Max. TDP Support: 350W
	Number of Processors: (2) Processors
	Internal Interconnect: 16 GT/s
	L3 Cache: Up to 112.5MB
Form Factor	2U Rackmount
Dimensions	**W x H x D (inch):** 17.3 x 3.4 x 30.7
	W x H x D (mm): 440 x 87.5 x 780
Chipset	Intel® C741 Series
Storage	**SKU - #1 :** [12x LFF Tiered]:
	Front Storage: (12) 3.5"/2.5" hot-plug SATA/SAS/NVMe drives
	Rear Storage: (2) 2.5" hot-plug NVMe/SATA/SAS drives (optional)
	SKU - #2 : [SFF Tiered]:
	Front Storage: (16) 2.5" hot-plug SATA/SAS drive + (8) 2.5" hot-plug NVMe SSD
	Rear Storage: (2) 2.5" hot-plug NVMe drives (optional)
	SKU - #3 : [SFF 24NVMe/U.2]:
	Front Storage: (24) 2.5" hot-plug SATA/SAS/NVMe drive
	SKU - #4 : [E1.S]:
	Front Storage: (24) E1.S hot-plug NVMe drives
Memory	**Capacity:** Up to 8TB (256Gx32) of memory capacity
	Memory Type: 4800 MHz DDR5 RDIMM/LRDIMM
	Memory Size: 16G, 32G, 64G, 128G, 256G
Expansion Slot	**SKU - #1 :** [General Config]
	(2) PCIe 5.0 x16 OCP 3.0 SFF slot
	(2) PCIe 5.0 x16 FHHL + (4) PCIe 5.0 x8 FHHL slot
	Optional (2) PCIe 4.0 x16 HHHL slot
	SKU - #2 : [Dual Width GPU Config]
	(2) PCIe 5.0 x16 OCP 3.0 SFF slot
	(2) PCIe 5.0 x16 FHFL + (2) PCIe 5.0 x16 FHHL slot
	Optional (2) PCIe 4.0 x16 HHHL slot
	SKU - #3 : [Single Width GPU Config]
	(2) PCIe 5.0 x16 OCP 3.0 SFF slot
	(4) PCIe 5.0 x16 FHHL slot
	Optional (2) PCIe 4.0 x16 HHHL slot
	SKU - #4 : [All Flash Config-1]
	(2) PCIe 5.0 x16 OCP 3.0 SFF slot
	(2) PCIe 5.0 x16 FHHL slot
	SKU - #5 : [All Flash Config-2]
	(2) PCIe 5.0 x16 OCP 3.0 SFF slot
	(1) PCIe 5.0 x16 FHHL + (2) PCIe 5.0 x8 FHHL slot
Network Controller	**LOM:** Dedicated (1) GbE management port
	Optional NIC: Please refer to our Compatible Component List for more information

Front I/O	Power/ID/Reset Buttons
	Power/ID/Status LEDs
	(2) USB 3.0 ports
	(1) VGA port
Storage Controller	**Onboard:** Intel® C741
	14x SATA3 6Gb/s ports
	Optional Controller:
	Broadcom MegaRAID 9560 Series HHHL Channel Card
	Broadcom 9500 Series PCIe Gen 4.0 Tri-Mode Storage HBAs
Power Supply	1+1 High efficiency redundant hot-plug
	Titanium 1600W/2000W/2600W/2700W AC PSU
Onboard Storage	(2) 2230 PCIE M.2 for Booting OS
Fan	(6) hot-swap dual rotor fans
Video	Integrated AST2600.
	Maximum display resolution is up to 1920x1080p 32bpp@60Hz
System Management	Redfish v1.11
	IPMI v2.0 Compliant, on board "KVM over IP" support
	Orqestra (QCT System Manager) (Optional)
Rear I/O	(1) USB 3.0, (1) Mini display port, (1) ID LED, (1) PFR/PWR LED, (1) PFR/PWR Button, (1) COM Port (micro USB type-B), (1) RJ45
Operating Environment	Operating temperature: 5°C to 35°C (41°F to 95°F)
	Non-operating temperature: -40°C to 70°C (-40°F to 158°F)
	Operating relative humidity: 20% to 85%RH
	Non-operating relative humidity: 10% to 95%RH
TPM	TPM 2.0 SPI module

Contact Us   **www.QCT.io**

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