Total Cloud Solutions with
AMD EPYC™ PROCESSORS

Found at: www.QCT.io/wheretobuy
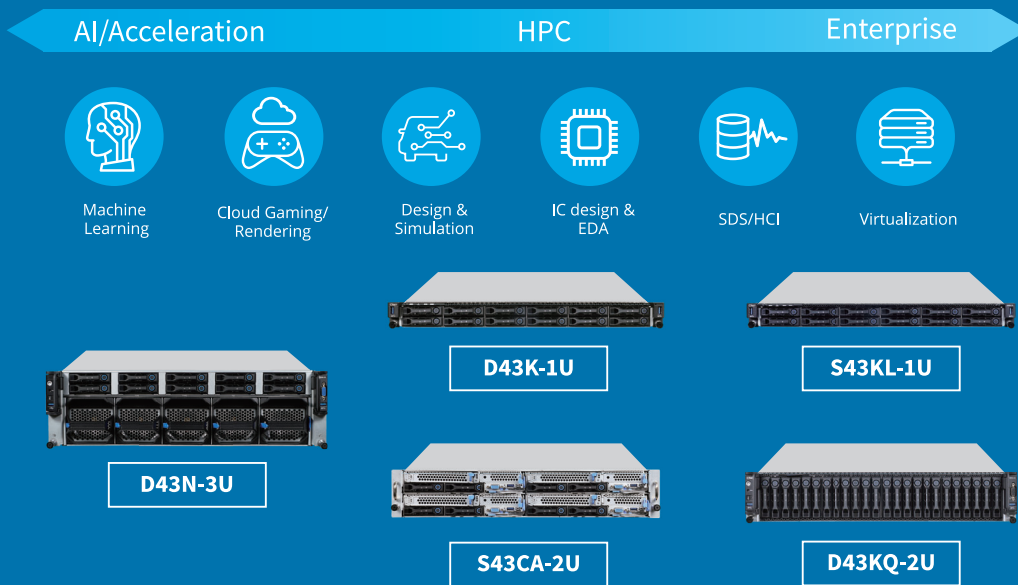
AI

HPC

AMD
EPYC

Elevated Data Center Performance with EPYC ™
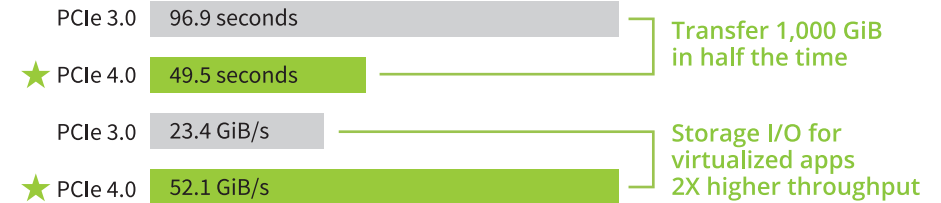
Feature	AMD EPYC™ 7003 Series Processor	Competition
Max core count per socket	64 cores / 128 threads	28 cores / 56 threads
Max TDP	280W	205W
Memory channels /socket	8ch, 2DPC	6ch, 2DPC
Memory frequency	Up to 3200 MHz	Up to 2933 MHz
CPU interlinks	xGMI-2, 16 GT/s	10.4 GT/s
PCIe Lane	128 lanes PCIe 4.0	48 lanes PCIe 3.0

EPYC™ Product Value Proposition

AI/Acceleration → HPC → Enterprise

Machine Learning

Cloud Gaming/ Rendering

Design & Simulation

IC design & EDA

SDS/HCI

Virtualization

D43N-3U

D43K-1U

S43KL-1U

S43CA-2U

D43KQ-2U

AMD EPYC

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The Era of PCIe 4.0

PCIe 3.0	96.9 seconds
★ PCIe 4.0	49.5 seconds

Transfer 1,000 GiB in half the time

PCIe 3.0	23.4 GiB/s
★ PCIe 4.0	52.1 GiB/s

Storage I/O for virtualized apps 2X higher throughput

Breakthrough Performance

- Dual 64-core AMD EPYC™ 7003 series processors beat the best record from Spec.org with its predecessor, EPYC™ 7742, on both integer and floating point workloads.

- Dual 64-core AMD EPYC™ 7763 processors are able to drive better memory bandwidth performance than the previous gen.
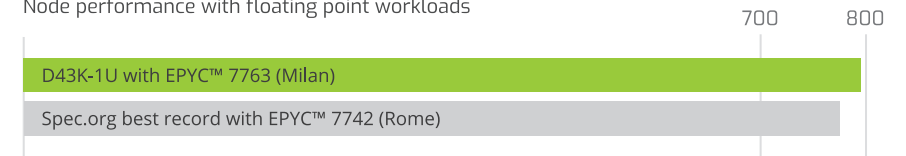
SpecCPU FP Rate
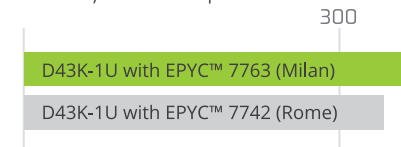Node performance with Integer workloads

500 600

D43K-1U with EPYC™ 7763 (Milan)

Spec.org best record with EPYC™ 7742 (Rome)
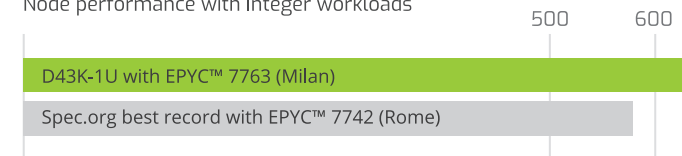
SpecCPU INT Rate
Node performance with floating point workloads

700 800

D43K-1U with EPYC™ 7763 (Milan)

Spec.org best record with EPYC™ 7742 (Rome)

Stream
Memory bandwidth performance

300

D43K-1U with EPYC™ 7763 (Milan)

D43K-1U with EPYC™ 7742 (Rome)

*EPYC™ 7003 data based on pre-production sample for early reference on dual socket platforms. Test result with final stepping CPU may be updated without prior notice.
*Scores sourced from spec.org public data from the result of 3/10, 2021.

QuantaGrid D43K-1U

AMD EPYC

Ultimate 1U Server with EPYC Performance Breakthroughs

- *Dual AMD EPYC™ processors with up to 4TB memory capacity*
- *Up to five expansion slots optimized for PCIe 4.0*
- *Supports up to 280W TDP for HPC workloads*

QuantaGrid D43K-1U is designed to unleash the power within AMD EPYC™ 7003 series processors. Featuring up to 4TB memory capacity, five PCIe 4.0 expansion slots and support for a single width GPU within a 1U chassis, it is optimized for the HPC workloads such as CFD design simulation and EDA tools for IC design, ready for deployment in your next generation data center.

Processor	(2) AMD EPYC™ 7003 Series Processor, up to 280W TDP
Memory	Up to 4TB memory capacity with (32) DDR4 DIMM slots. Supporting 3200 MHz 1DPC
Storage	(12) 2.5" U.2 SSD ⫽ (4) 3.5" SATA/SAS drives Optional (4) 9mm NVMe/SATA/SAS drives
Network Controller	(1) OCP 3.0 mezzanine (1) 1 GbE dedicated management port
Expansion Slot	(1) PCIe 4.0 x8 SAS mezzanine slot (1) PCIe 4.0 x8 OCP 3.0 mezzanine SFF slot (2) PCIe 4.0 x16 FHHL or (3) PCIe 4.0 x16 HHHL
Form Factor	1U Rackmount

QuantaGrid D43N-3U

AMD EPYC

Optimized Acceleration Server

- *Up to 128 CPU cores with 8TB memory capacity*
- *Flexible acceleration card configuration optimized for both compute and graphic intensive workloads*
- *Easy service design for minimum downtime*

QuantaGrid D43N-3U is a dual-socket acceleration server, supporting AMD EPYC™ 7003 top bin processors with a fully populated memory channel to feed high throughput GPU cards which boost extreme parallel computing performance. Its various PCIe configurations with versatile acceleration card support allow this platform to conquer many workloads including but not limited to compute intensive application such us oil/gas, molecular dynamics, AI training and inference, but also graphic intensive ones like graphics rendering, virtual workstations, and cloud gaming.

Processor	(2) AMD EPYC™ 7003 Series Processor, up to 280W TDP			
Memory	Up to 8TB memory capacity with (32) DDR4 DIMM slots. Supporting 3200 MHz 1DPC			
Storage	(8) 2.5" SATA/SAS + (2) 2.5" SATA/SAS/NVMe	(6) 2.5" SATA/SAS + (4) 2.5" SATA/SAS/NVMe	(2) 2.5" SATA/SAS + (8) 2.5" SATA/SAS/NVMe	(6) 2.5" SATA/SAS + (4) 2.5" SATA/SAS/NVMe
Network Controller	(1) OCP 3.0 mezzanine (1) 1 GbE dedicated management port			
GPU slot	[option 1] (4) PCIe x16, Full height, 10.5"L, dual-width [option 2] (8) PCIe x8 HHHL/Full height, 10.5"L, single-width [option 3] (8) PCIe x16, HHHL/Full height, 10.5"L, single-width			
Expansion Slot	(1) PCIe x8, OCP Mezz (1) PCIe x16, HHHL (1) PCIe x8 SAS Mezz (1) PCIe x16, HHHL	(1) PCIe x8, OCP Mezz (1) PCIe x8, HHHL (1) PCIe x8 SAS Mezz (1) PCIe x16, HHHL	(1) PCIe x8, OCP Mezz (1) PCIe x8 SAS Mezz 16i (1) PCIe x8, HHHL	(1) PCIe x8, OCP Mezz (1) PCIe x8, HBA & RAID (1) PCIe x8 SAS Mezz (1) PCIe x16, HHHL
Form Factor	3U Rackmount			

QCT EPYC™ PRODUCT LINE

EPYC™ Compute Server

QuantaGrid
D43K-1U
1U / Dual Processor

`#Compute` `#HPC` `#CFD` `#EDA`

QuantaGrid
D43KQ-2U
2U/ Dual Processor

`#Compute` `#SDS` `#AI Influence`

`#vSAN`

QuantaGrid
S43KL-1U
1U/ Single Processor

`#Compute` `#SDS` `#Enterprise`

`#TCO`

EPYC™ AI Acceleration Server

QuantaGrid
D43N-3U
3U/ Dual Processor with Accelerator

`#HPC` `#AI Training` `#AI Influence`

`#Rendering` `# CloudGaming`

EPYC™ Multi-Node Server

QuantaGrid
S43CA-2U (4-node)
2U4N / Single Processor

`#FrontAccess` `#EDA` `#Compute`

United States
QCT LLC., Silicon Valley office
1010 Rincon Circle, San Jose, CA 95131
TOLL-FREE: 1-855-QCT-MUST
TEL: +1-510-270-6111
FAX: +1-510-270-6161
Support: +1-510-270-6216

Japan
Quanta Cloud Technology Japan 株式會社
日本国東京都港区芝大門二丁目五番八号
牧田ビル 3 階
TEL: +81-3-5777-0818
FAX: +81-3-5777-0819

China
云达科技,北京办公室（Quanta Cloud Technology）
北京市朝阳区东大桥路 12 号润诚中心 2 号楼
TEL: +86-10-5920-7600
FAX: +86-10-5981-7958

云达科技,杭州办公室（Quanta Cloud Technology）
浙江省杭州市西湖区古墩路浙商财富中心 4 号楼 501 室
TEL: +86-571-2819-8650

Germany
Quanta Cloud Technology Germany GmbH
Hamborner Str. 55, 40472 Düsseldorf
TEL: +49-211-74077-300

Korea
QCT Korea, Inc. (주식회사 큐씨티코리아)
서울특별시 영등포구 의사당대로 97 교보증권빌딩 10층, 07327
TEL: +82-10-5397-1412
FAX: +82-2-6336-6710

Other regions
Quanta Cloud Technology
No. 211 Wenhua 2nd Rd., Guishan Dist.,
Taoyuan City 33377, Taiwan
TEL: +886-3-327-2345
FAX: +886-3-397-4770