



# Total Cloud Solutions with **AMD EPYC™ PROCESSORS**





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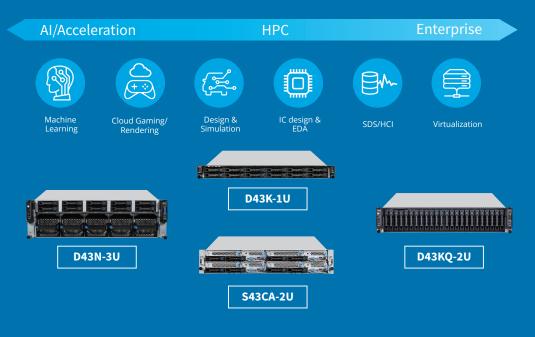
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# **Elevated Data Center Performance with EPYC™**

Feature	AMD EPYC™ 7003 Series Processor	Previous Gen
Max core count per socket	64 cores / 128 threads	64 cores / 128 threads
Max TDP	280W	280W
L3 cache	Up to <b>768MB</b> with 7003X Series Processors	Up to 256MB
Memory channels per socket	8ch, 2DPC	8ch, 2DPC
Memory frequency	Up to 3200 MHz	Up to 3200 MHz
PCIe lane	128 lanes PCle 4.0	128 lanes PCle 4.0

# **EPYC™ Product Value Proposition**





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#### The Era of PCIe 4.0



# **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<sup>™</sup> 7763 processors are able to drive better memory bandwidth performance than the previous gen.

#### SpecCPU FP Rate



#### SpecCPU INT Rate



#### Stream



<sup>\*</sup>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.

<sup>\*</sup>Scores sourced from spec.org public data from the result of 3/10, 2021.

## **QuantaGrid D43K-1U**









#### 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 PCle 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™ 7003/7003X 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		
	(2) PCIE 4.0 X10 FNNL	or (5) FCIE 4.0 X10 HHHL	
Form Factor	1U Rack	rmount	

# **QuantaGrid D43N-3U**





#### 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 PCle 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, Al training and inference, but also graphic intensive ones like graphics rendering, virtual workstations, and cloud gaming.

Processor	(2) AMD EPYC™ 7003/7003X 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				

## **QuantaPlex S43CA-2U (4 Nodes)**









#### Density Optimized "EPYC" Multi-node Server

- High Density server design powered by the latest AMD EPYC™ 7003 processor series
- Single socket EPYC processor with 16 DIMMS per node optimized for compute-centric Data Center requirements
- Front-access cold-aisle hyperscale serviceability
- Aggregated networking infrastructure for reduced TCO

QuantaPlex S43CA-2U is a multi-node server that supports the next generation of powerful AMD EPYC™ processors. Each of the 4 nodes in this compact 2U chassis is capable of supporting EPYC 7003/7003X CPU, boasting a dominant 64-cores while still providing 16 DIMM slots that meets the most intense computing environment needs. This sophisticated architecture features front access sled serviceability that improves thermal conditions and hyperscale-like cold-aisle service for reduced OPEX. Calculated to minimize TCO even further, the infrastructure integrates pass-through modules for aggregated networking that decreases cable clutter and reduces networking footprint.

Processor	(1) AMD EPYC™ 7003/7003X Series Processors up to 240W TDP		
Memory	Up to 2TB memory capacity with (16) DDR4 DIMM slots per node.		
Front IO	(1) PCIe 4.0 x16 FHHL expansion slot per node (1) PCIe 4.0 x16 HHHL expansion slot per node (2) 2.5" hot-plug NVMe/SATA SSD per node		
Network	Single/Dual 25G port per node		
Rear IO	(1 or 2) single/dual 100G port pass-through module		
Form Factor	2U Rackmount, 4 nodes		

# **QCT EPYC™ PRODUCT LINE**

# EPYC<sup>™</sup> Compute Server



# QuantaGrid D43K-1U

1U / Dual Processor

#Compute

#HPC

#CFD

#EDA





QuantaGrid **D43KQ-2U** 

2U / Dual Processor

#Compute

#SDS

#Al Influence

#vSAN

### EPYC™ Multi-Node Server



QuantaGrid S43CA-2U (4-node)

2U4N / Single Processor

#FrontAccess

#EDA

#Compute

# **EPYC™ AI Acceleration Server**



QuantaGrid **D43N-3U** 

3U / Dual Processor with Accelerator

#HPC

#Al Training

#Al Influence

#Rendering

# CloudGaming