

TRIDENT H625QR-G5

immersion server





Perfect for

- › HPC
- › Rendering
- › Edge Computing
- › AI
- › Machine Learning
- › Deep Learning

Purpose-Built and Optimized

Looking for a sustainable ultra-high density, scalable system to meet the evolving demands of your critical high-performance computing needs? The AMD EPYC™ 7003 Series powered CIARA TRIDENT H625QR-G5 immersion server is purpose-built for single-phase immersion cooling technology. It offers flexible support for up to 4 hot-swappable dual-socket compute nodes in a 2U chassis with up to 4 TB of DDR4-3200 MHz memory per node.

Performance and Reliability

We are driven by our need to continuously improve performance on our servers. Our turbo-locked features guarantee superior performance, without sacrificing reliability or hardware lifespan. It is perfect for HPC workloads in industries like edge computing, digital manufacturing, media and entertainment, financial services and AI.

Serviceability and Warranty

For improved serviceability and uptime, the CIARA TRIDENT H625QR-G5 compute nodes can be maintained without impacting operation of other nodes in the same chassis. We offer optimal RAS features that help you save on service costs, reduce server downtime, and allow flexibility and ease to adapt to new generations of technology when the time comes.



BENEFITS

The Unrivalled Benefits of Immersion Cooling

Immersion cooling has a huge number of benefits, especially when it comes to sustainability and efficiency. It significantly reduces the amount of water used, levels of carbon emissions, and much more.

95%
Reduction in
Cooling OPEX

> PUE of 1.03 (certified by a 3rd party). ROI of less than 1 year even only considering the electricity savings.

60%
Increase in
Hardware Lifespan

> No moving parts, no dust particles, no vibrations, less thermal and mechanical stress due to the uniformity provided by the liquid and its viscosity.

10x
Increase in Server
Density

> Dissipation capacity of up to almost 100 kW in the space of two standard racks.

99%
Heat Captured
in Form of Warm
Water

> Allows for unprecedented energy reuse if data centers are built close to communities or industry potentially creating new revenue streams.

50%
CAPEX Reduction
Build Costs

> Rapidly deployable in raw space without need for raised floors nor cold aisles. Minimum retrofitting required for existing data centers.

0%
Water
Consumption

> The closed loop of the secondary cooling system guarantees no corrosion, health risks (legionella) and prevents any water evaporation.



2U 4-Node AMD (Immersion Cooling Ready) - Chassis

Product Category	High Density Compute Server
Form Factor	4 hot-swappable dual-socket compute nodes in a 2U chassis
Cooling System	Single-Phase Immersion Cooling
Power Supply	(1+1) Hot-swap redundant 3200W AC - 80 PLUS Titanium Power Supply
Dimensions (L x W x H)	33.1" x 17.3" x 3.5" 840mm x 440mm x 86mm
Estimated Weight	87 lb / 39.5 kg

Node Specifications

Processor	Dual AMD EPYC™ 7003 Processors, TDP up to 280W
Heatsink	Immersion Cooling Custom Heatsink
TIM	Indium Foil
Memory	Up to 4,096 GB (16 x DIMM) DDR4-3200 MHz 8-channel memory architecture Supports RDIMM, LRDIMM, 3DS RDIMM/LRDIMM
Network Controller	Intel® i350-AT2 Dual-Port 1GbE 1G BASE-T Single-Port Dedicated Management 1GbE 1G BASE-T
Storage	(1) M.2 SSD up to 22110 (PCIe)
Expansion Slots	(2) PCIe 4.0 x16 HHHH from CPU_0 (1) OCP 3.0 PCIe 4.0 x16 mezzanine from CPU_0
GPU/FPGA Capabilities	N/A or (1) if HH/HL
GPU/FPGA Support	Upon Request
I/O Rear	(2) USB 3.0, (1) Mini DP, (1) RJ45 MLAN, (2) RJ45 Gbe Lan, (1) ID LED
Management	Aspeed® AST2500 BMC
Power Supply	N/A
OCP Availability	N/A

Operating Temperatures	10°C~ 50°C
OS Support	Windows Server 2019, Red Hat Enterprise Linux 8.3 (x64) or later, SUSE Linux Enterprise Server 15 SP2 (x64) or later, Ubuntu 20.04.1 LTS (x64) or later, VMware ESXi 7.0 Update 2 or later

Single-Phase Immersion Cooling Capacity

Max Nodes Capacity per Pod	
Submer MicroPod	12 Nodes - 500 W Max per Node
Submer SmartPodXL	84 Nodes - 600 W Max per Node
Submer SmartPod XL+	84 Nodes - 1200 W Max per Node
Submer SmartPod XL+ (48U)	96 Nodes - 1000 W Max per Node



SERVICES

The 360° Hypertec Made-For-Immersion Solution

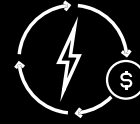
We bring a full 360° solution so all you need to do is sit back and enjoy all the benefits without the headache and save on OPEX and CAPEX. Our professional services enhance your IT journey by reducing time, TCO, effort and resources.

Want to learn more or need help?

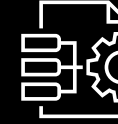
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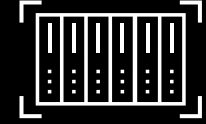
Site
Assessment



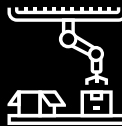
Power
Budget



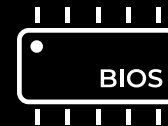
Installation
Planning



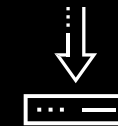
Tank & Pod
Layout



Factory
Assembly



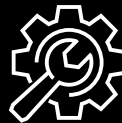
BIOS & Firmware
Settings



Software & OS
Installation



Customer
Image



Onsite
Installation



Cabling &
Labeling



Networking &
Power



Global Warranty
& Service

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Limited Warranty

Hardware warranty includes a one year, parts and labour with return to Hypertec USA or Canada. Customers may purchase an extended warranty of up to 5 years on parts and labour with different support levels. For additional information regarding worldwide limited warranty and technical support, please visit: <https://hypertec.com/support-services-policy/>.