Hypertec

Data sheet

TRIDENT iC615DR-G6 immersion server









Data sheet OVERVIEW

Perfect for

- > HPC
- > Rendering
- Edge Computing

- > Al
- Machine Learning
- Deep Learning

Unprecedented Performance

Looking for a sustainable ultra-high density, scalable system to meet the evolving demands of your critical high-performance computing needs? The 4th Gen AMD EPYC[™] powered CIARA TRIDENT iC615DR-G6 immersion server is purpose-built for single-phase immersion cooling technology. It offers flexible support for up to 2 hot-swappable dualsocket compute nodes in a 1U chassis with up to 96 Zen 4 cores per socket, 2 M.2 slots, 2 PCIe 5.0 x16 slots and 6 TB of DDR5 4800 MHz memory per node.

Accelerated Workloads

We profoundly understand how software and algorithms work with any given hardware so we can optimize the system to your exact requirements. The CIARA TRIDENT iC615DR-G6 is perfect for HPC, rendering, edge computing, AI, machine learning and deep learning workloads.

Unmatched Serviceability

For improved serviceability and uptime, the CIARA TRIDENT iC615DR-G6 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.

Data sheet TECH SPECS

1U 2-Node AMD (Custom Designed for Immersion Cooling) - Chassis

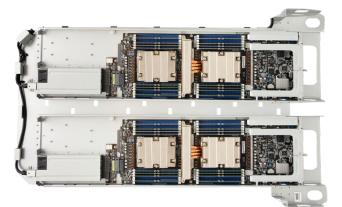
Product Category	High Density Compute Server	
Form Factor	2 dual-socket compute nodes in a 1U chassis	
Cooling System	Single-Phase Immersion Cooling	
Power Supply	Included in each Node - Single CRPSU 1600 W	
Dimensions (L x W x H)	21" Option: 34.01" x 20.30" x 1.71" (864mm x 516mm x 43.5mm) 19" Option: 34.01" x 17.71" x 1.71" (864mm x 450mm x 43.5mm)	
Estimated Weight	43.7 lb / 19.9 kg	

Node Specifications

Processor	Dual AMD EPYC [™] 9004 Processors, TDP up to 400W		
Chipset	Embedded PCH		
Heatsink	Immersion Cooling Custom Heatsink		
TIM	Indium Foil		
Memory	Up to 6TB DDR5-4800 MHz RDIMM / 3DS (24 x DIMM) 12-channel memory architecture Supports RDIMM, LRDIMM, 3DS RDIMM/LRDIMM		
Network Controller	Intel [®] x710 Dual-Port 10GbE 10G BASE-T Single-Port Dedicated Management 1GbE 1G BASE-T		
Storage	2 x M.2 NVMe SSD up to 22110 (PCle) 2 x Fixed 2.5" SSD (HBA or RAID Card Required)		
Expansion Slots	2 x PCle 5.0 x16, LP HHHL		
GPU/FPGA Capabilities	N/A or 2 x if HH/HL		
GPU/FPGA Support	Upon Request		
I/О Тор	2 x USB 3.2, 1 x Mini DP, 1 x RJ45 MLAN, 2 x RJ45 10GbE LAN, 1 x Q-code/ Port 80 LED, 1 x VGA Port		
Management	Aspeed [®] AST2600		
Power Supply	1 x Fixed 1600W AC - 80 PLUS Platinum Power Supply		

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 Imm	ersion Cooling Capacity		
Max Nodes Capacity per I	Pod		
Submer MicroPod	21" Option: N/A 19" Option: 12 Nodes - 500 W Max per Node		
Submer SmartPodX (50kW)	42 Nodes - 1200 W Max per Node		
Submer SmartPodXL (50kW)	96 Nodes* - 600 W Max per Node		
Submer SmartPodXL+ (100kW)	96 Nodes* - 1200 W Max per Node		







Data sheet 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.

Data sheet 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?

- > Contact Sales
- > Immersion Cooling Solutions
- > Hypertec Cloud Services
- > Hypertec Support Center
- Support Services & Warranty
- > Sustainability

Learn more

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Site Assessment



Power Budget



Installation Planning



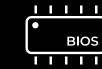
Tank & Pod Layout



Factory Assembly



Onsite Installation



BIOS & Firmware Settings

Cabling &

Labeling



Software & OS Installation

Networking &

Power



Customer Image

Global Warranty & Service

Т́Э

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/.

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