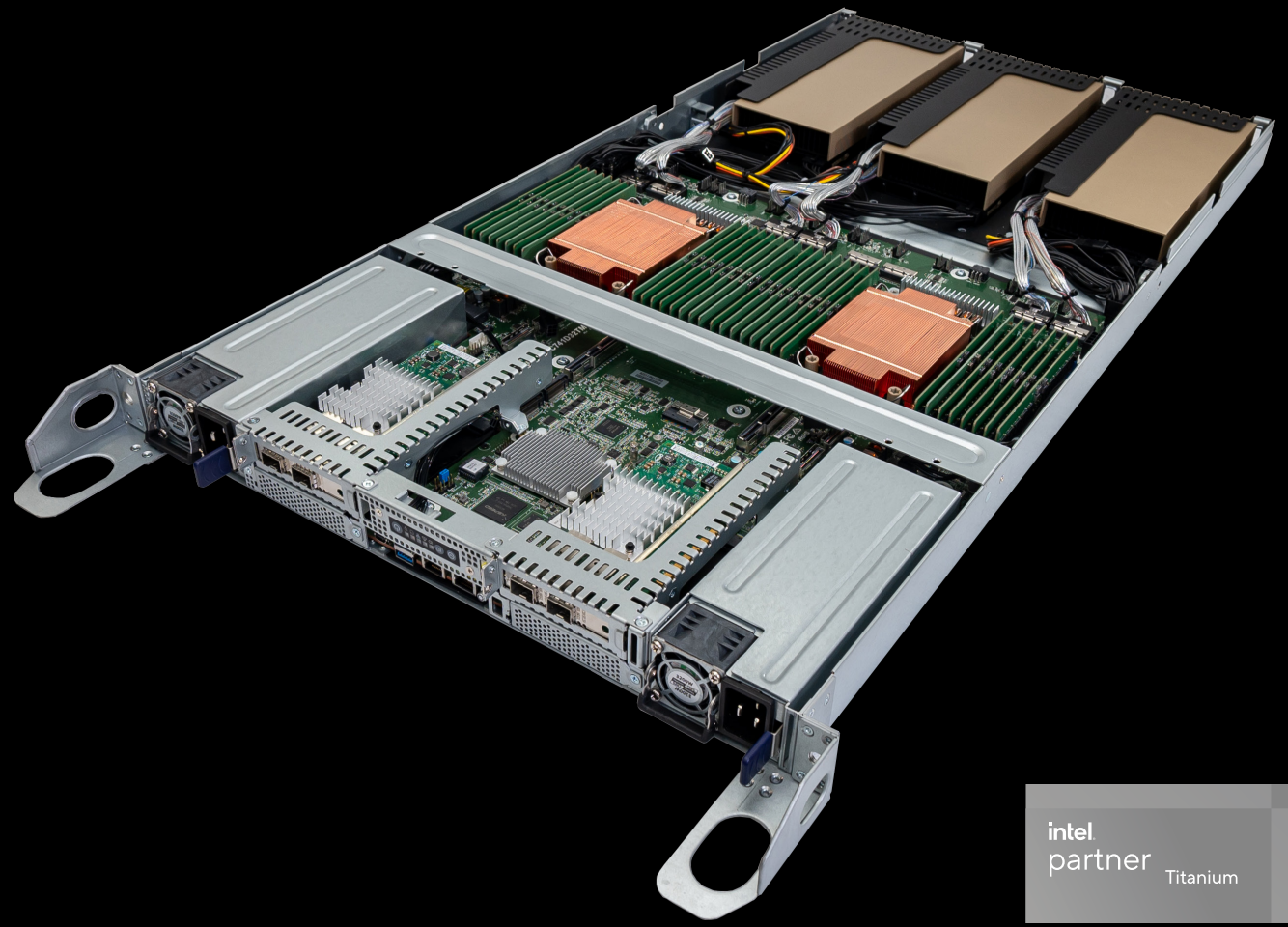
Hypertec

TRIDENT iG610R-G6

immersion GPU server



intel partner Titanium

intel XEON PLATINUM

OVERVIEW

Perfect for

- Gen AI
- ML/DL
- Fine Tuning
- Inferencing
- Training Language Models
- HPC
- Data Analytics
- Edge Computing
- Research

1U 3 GPUs Immersion-born Server

A new standard in density, TCO, and usability, the TRIDENT iG immersion-born GPU servers by Hypertec are ready to disrupt traditional data center infrastructure by maximizing GPU density while lowering total cost of ownership (TCO) and improving serviceability.

Powering AI Sustainably

The iG610R-G6 is engineered to advance AI sustainably, blending powerful processing capabilities with optimized performance for complex tasks such as training language models, analyzing large datasets, and fine-tuning. This server provides the reliability and efficiency essential for organizations at the forefront of discovery and innovation.

Optimized Power and Performance

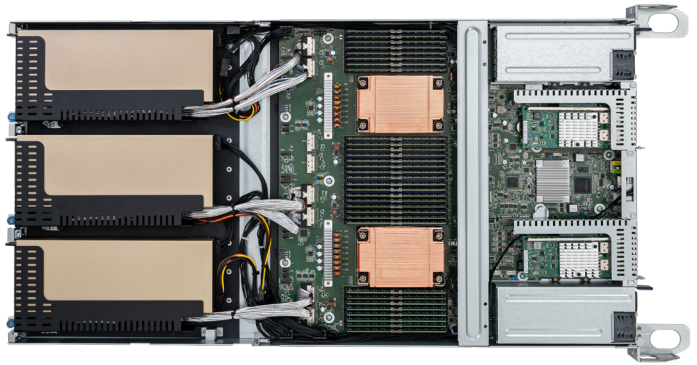
With its tiered thermal design optimized for immersion cooling, the system ensures stable temperatures and peak efficiency. A cable-less PSU enhances liquid flow, and a forced convection heat sink maintains consistent performance under heavy workloads. Supporting up to three GPUs, this server is ideal for sustainable, high-performance Gen AI, machine learning, and HPC applications.

TECH SPECS

1U - 3 GPU (TRIDENT Immersion-born)

Product Category	Immersion GPU Server
Form Factor	1U
Cooling System	Single-Phase Immersion Cooling
Power Supply	1+1 Redundant CRPS 3000W/3200W AC - 80 PLUS Titanium Power Supply
Dimensions (L x W x H)	33.85” x 17.48” x 1.75” 860mm x 445mm x 44.5mm
Estimated Weight	67 lb / 30.4 kg
Processor	Dual 4th and 5th Gen Intel® Xeon® Scalable Processors, TDP up to 350W
Heatsink	Immersion Cooling Custom Heatsink
TIM	Indium Foil
Memory	16+16 DIMM slots (2DPC) 288-pin DDR5 RDIMM/ RDIMM-3DS 8-channel memory architecture RDIMM: 96GB RDIMM-3DS: 2H- 128 GB / 4H- 256 GB 5600 MT/s (1DPC) / 4400 MT/s (2DPC) on 5th Gen Intel® Xeon® Scalable Processors 4800 MT/s (1DPC) / 4400 MT/s (2DPC) on 4th Gen Intel® Xeon® Scalable Processors *Memory speed and capacity support varies by CPU SKU
Network Controller	1 x RJ45 Dedicated IPMI LAN port by Realtek RTL8211F
Storage	2 x M.2 (PCIe 4.0 x4), support 22110/2280 form factor [CPU2]
Expansion Slots	2 x PCIe 5.0 x16 HHHLSW 2 x OCP NIC 3.0 (PCIe 5.0 x16) 3 x PCIe 5.0 x16 FHFLDW
GPU/FPGA Capabilities	Yes (3 x GPU/FPGA)
I/O Top	2 x USB Type A (3.2 Gen1), 1 x Mini Display Port (VGA), 1 x RJ45 dedicated IPMI 1 x RJ45 (COM), 1 x UID Button w/ LED
Management	ASPEED AST2600: IPMI2.0 with iKVM and vMedia support
OCP (ORv3) Availability	N/A

OS Support	Microsoft® Windows®: Server 2022 (64 bit) Linux: Red Hat Enterprise Linux Server 8.4 (64 bit) / 8.5 (64 bit) / 9.1 (64 bit) SUSE Enterprise Linux Server 15 SP3 (64 bit) Ubuntu 21.10 (64 bit) / 22.04 (64 bit) Hypervisor: VMWare® ESXi 7.0 U3g / 8.0 *RAID mode is not supported on the Ubuntu system.



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.

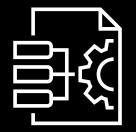
Want to learn more or need help?

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

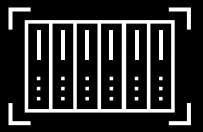
Learn more

Site Assessment

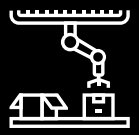
Power Budget



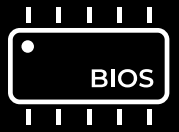
Installation Planning



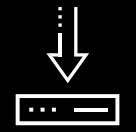
Tank & Pod Layout



Factory Assembly



BIOS & Firmware Settings



Software & OS Installation

Customer Image

Onsite Installation

Cabling & Labeling

Networking & Power

Global Warranty & Service

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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