

superformax

Energy Efficient Computing

Engineered for energy-smart
operations and performance.



More Power, For Less Power

High performance computing and datacenters are notorious for their energy inefficiency, resulting in significant environmental impact and high operating costs. Superformax is dedicated to addressing this challenge head-on by developing eco-friendly servers and workstations that prioritize sustainability and efficiency. By integrating cutting-edge liquid-cooling technology directly into the server chassis, our solutions provide an exceptionally energy-efficient alternative to conventional air-cooled servers. This allows datacenters to achieve lower Power Usage Effectiveness (PUE), significantly reduce their carbon footprint, and unlock the potential for increased density.

At Superformax, we hold ourselves accountable to being a responsible and sustainable brand. When designing our systems, we make conscious choices to use eco-friendly materials whenever possible. It is our firm belief that it is our duty to provide datacenters with a solution that not only meets their demanding performance requirements but also considers the environmental impact of their operations.

By choosing Superformax, customers can effectively reduce their operating costs while actively contributing to a greener future. Our commitment to energy efficiency, sustainability, and environmental responsibility empowers datacenters to embrace the Net Zero paradigm and optimize their operations for both performance and planet. Together, we can pave the way towards a more sustainable and efficient digital infrastructure.

A handwritten signature in white ink, appearing to read 'Raymond Koh', is positioned above the name and title. The signature is fluid and stylized, with a long horizontal stroke extending to the right.

Raymond Koh
Managing Director

Facts & Figures

55%

Amount of energy consumed by datacenters for cooling.

Source: Uptime Institute

8%

Estimated global electricity consumption from datacenters in 2030.

Source: ResearchGate

1.55

Average PUE of datacenters worldwide in 2022.

Source: Uptime Institute

300

Metric tons of carbon dioxide emissions from datacenters.

Source: International Energy Agency

1.22

Potential operating PUE when using Supermax systems.

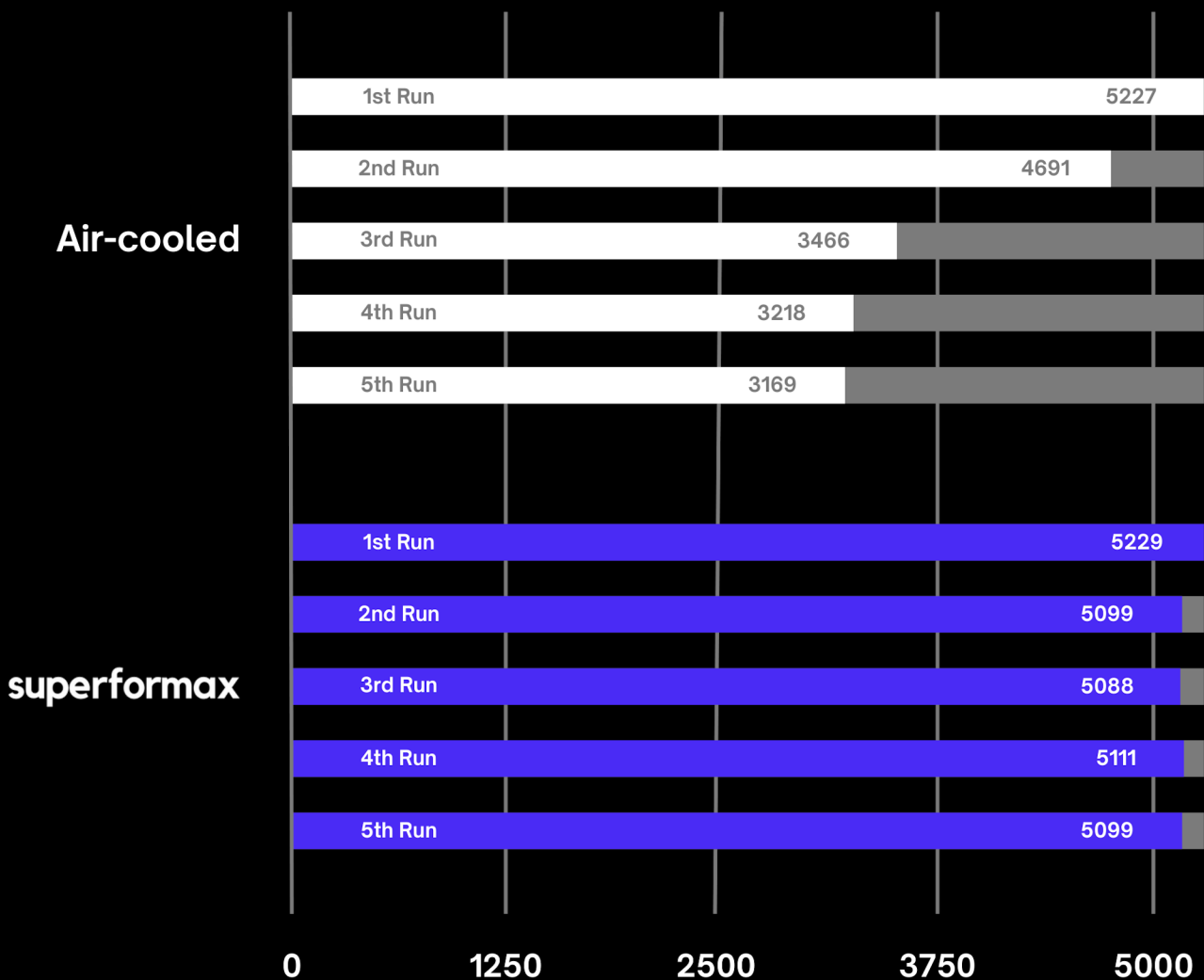
40%

Potential cost savings from switching to Supermax systems.

Benefits of Superformax Systems

- ✓ Up to 20% more energy efficient than air-cooled systems
- ✓ Allows for up to 45% potential increase in compute density
- ✓ Lower operational costs
- ✓ Reduces performance throttling due to heat

4 x NVIDIA® GeForce RTX™ 4090 OctaneBench® Performance



Benefits of Superformax Systems

Seamlessly transition between rack-mounted servers and desktop workstations. Each system can be easily configured to adapt to different environments and meet diverse computing needs. Whether deployed in a datacenter or used as a high-performance workstation, Superformax systems deliver powerful performance and efficiency in any setting.



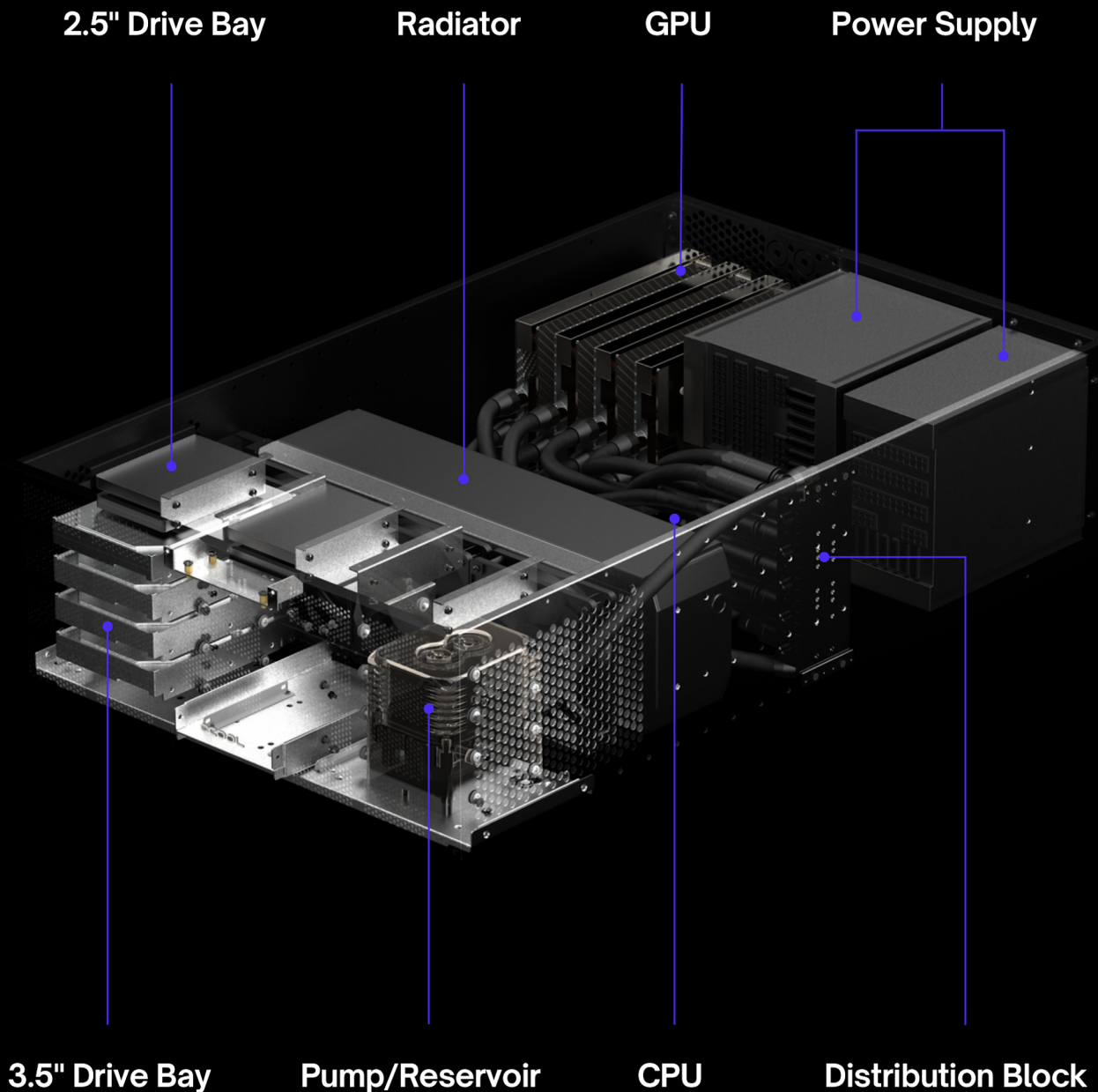
Vertical workstation configuration for desktop use.

Benefits of Superformax Systems



Horizontal configuration on standard 19" rack.

Anatomy of a Superformax System



Superformax systems feature versatile storage options, for both 2.5" and 3.5" drives. With capacity for redundant pumps, it ensures uninterrupted liquid cooling performance. At its core, the system boasts the SuperDLC™ cooler with a massive full copper radiator, optimizing heat dissipation and thermal conductivity.

Technologies

SuperDLC™ Cooler

The SuperDLC™ cooler is an efficient in-situ liquid cooling solution, surpassing traditional air-cooling methods. With no need for an external chiller, it saves space in datacenters while enhancing system performance and reliability. By maintaining lower operating temperatures, it extends component lifespan and reduces the risk of thermal throttling in demanding applications.

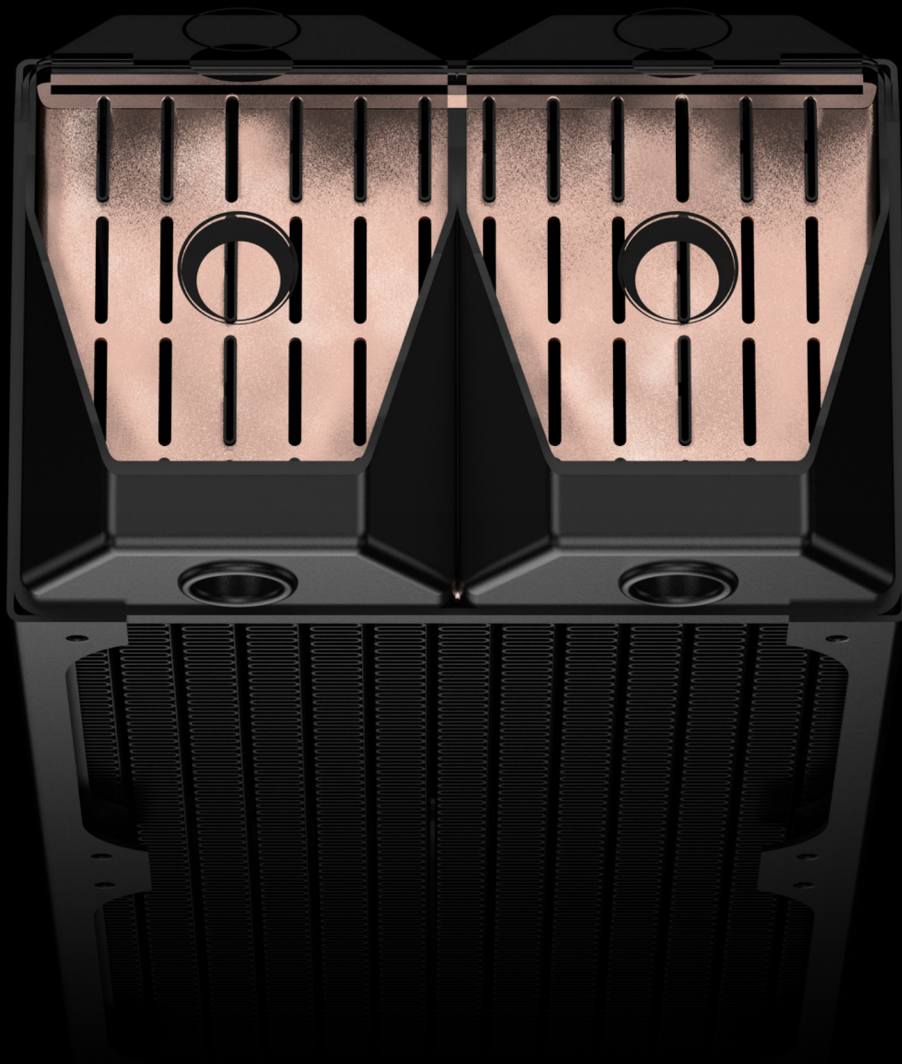


SuperDLC cooler assembly in 4 GPU configuration.

Technologies

Full Copper Radiator

Superformax uses full-copper radiators, enabling highly effective heat dissipation. With its impressive thermal conductivity of approximately 401 W/mK, copper efficiently transfers heat away from critical components, ensuring optimal cooling performance. The radiator is also designed with increased fin density, further enhancing its ability to dissipate heat effectively.



Radiator cutaway showing full copper internals.

Technologies

TPV Quick Release Connector

The TPV Quick Release Connectors offer seamless and hassle-free swapping of GPUs while ensuring minimal coolant leakage during the GPU replacement process. This feature streamlines system maintenance and enables smooth scalability, allowing datacenters to adapt and evolve their computing power as needed, while maintaining reliable and efficient operation.



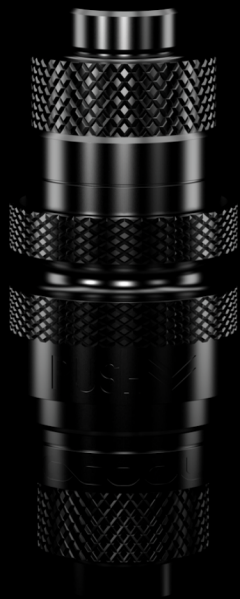
TPV Quick Release Connector in closed (L) and open (R) configurations.

Available Upgrades



Castor wheels

Upgrade your Supermax system with our optional castor wheels for enhanced mobility and convenience. Easily maneuver and transport your system with these high-quality, durable castor wheels, ensuring effortless mobility within your workspace.



Brass Quick Release Connector

With their reliable design, these high-end connectors ensure a robust, secure, and leak-free disconnection process, allowing for seamless maintenance and easy upgrades without any coolant leakage concerns.

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