

Evaluation of Accelsius' NeuCool™ Technology



ACCELSIUS

Founded: June 2022

Headquarters: Austin, TX

Employees: 75+

Solution: NeuCool, a two-phase, direct-to-chip liquid cooling technology



Discover More
About Our Mission



KEY FINDINGS

Unmatched Thermal Performance

Delivers **4,500W per GPU socket**, outperforming ZutaCore (2800W) and exceeding the limits of next-gen single-phase cold plates (CoolIT at 4000W).

→ NeuCool sets the bar for AI-era cooling.

Future-Proofed For Power Wars

Designed with **substantial thermal headroom**, ensuring support for **multiple chip generations** (e.g. GB200, MI355X).

→ Customers invest once, stay ready for years.

Sustainability Without Compromise

Operates reliably on **40°C facility water** and reduces chiller energy, enabling **25%+ energy savings** vs. single-phase.

→ Delivers on ESG without sacrificing performance.

Safe & Non-Conductive By Design

Uses a **dielectric refrigerant** with an **A1 safety rating** and **GWP<1**, unlike water-based systems that risk downtime and damage.

→ Leak events become non-events.

More Efficient Than Single-Phase

Achieves high heat removal with **dramatically lower flow rates**, meaning **smaller pumps, fewer parts, and easier maintenance**.

→ Less complexity, lower TCO.

Validated Across a Full Rack Load

Demonstrated **250kW rack-level performance**; **>2X** the capability of other two-phase competitors—proof of readiness for **real-world hyperscale AI deployments**.

→ Beyond claims, Accelsius has proven results.