



Waterless Liquid Cooling for AI Factories

January 2026



Introducing ZutaCore



Developers of HyperCool® direct-to-chip liquid cooling end-to-end solution:

- Waterless
- 2-phase
- Pool-boiling architecture

Leading the sustainable transformation of datacenters to AI factories

110+ Employees

Global offices: Israel USA UK EU Taiwan India

Backed by global strategic investors:



MITSUBISHI
HEAVY INDUSTRIES



STÄUBLI



DAIKIN



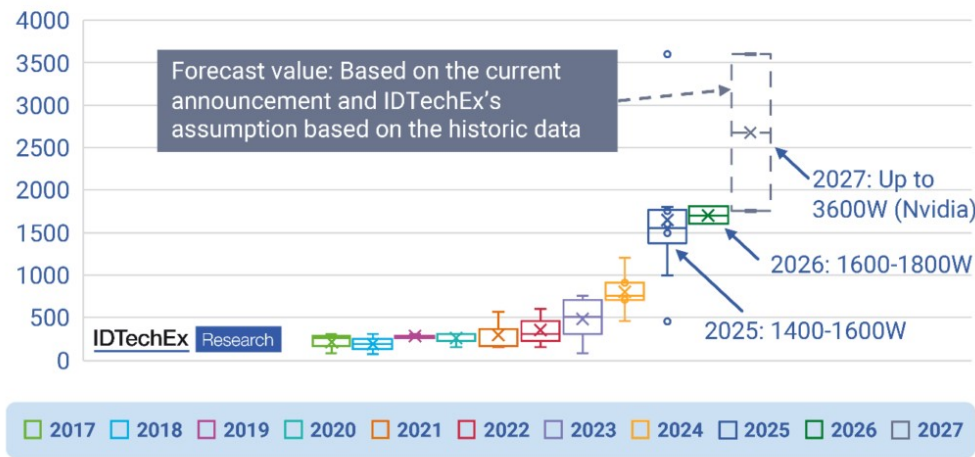
Munters



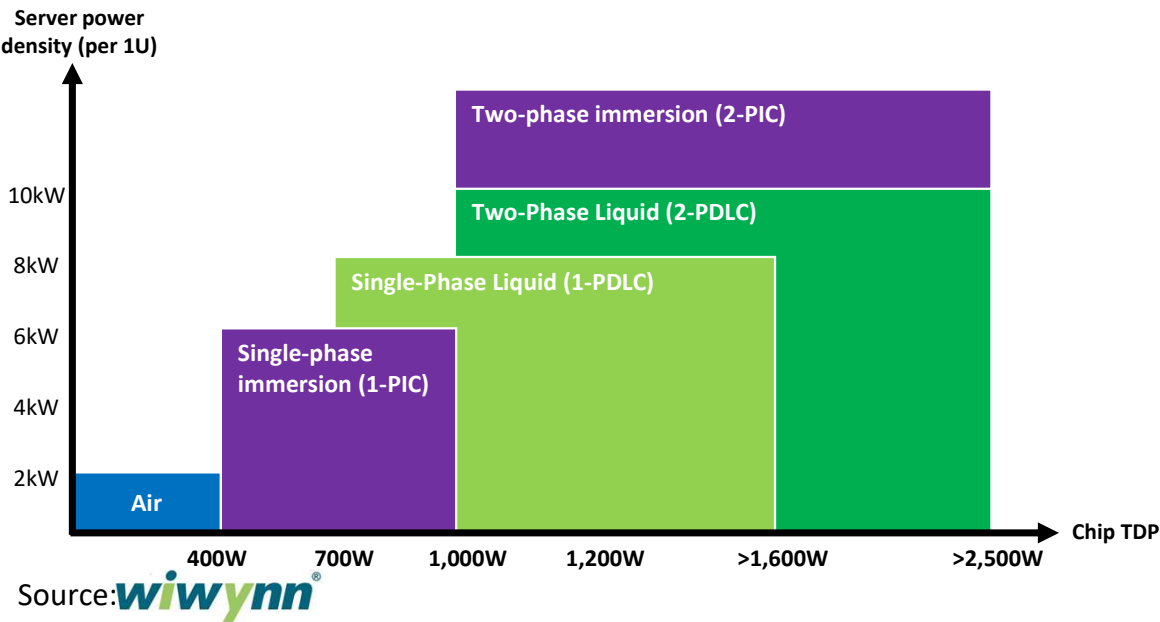
AI Chips are getting more powerful, and hotter, fast...



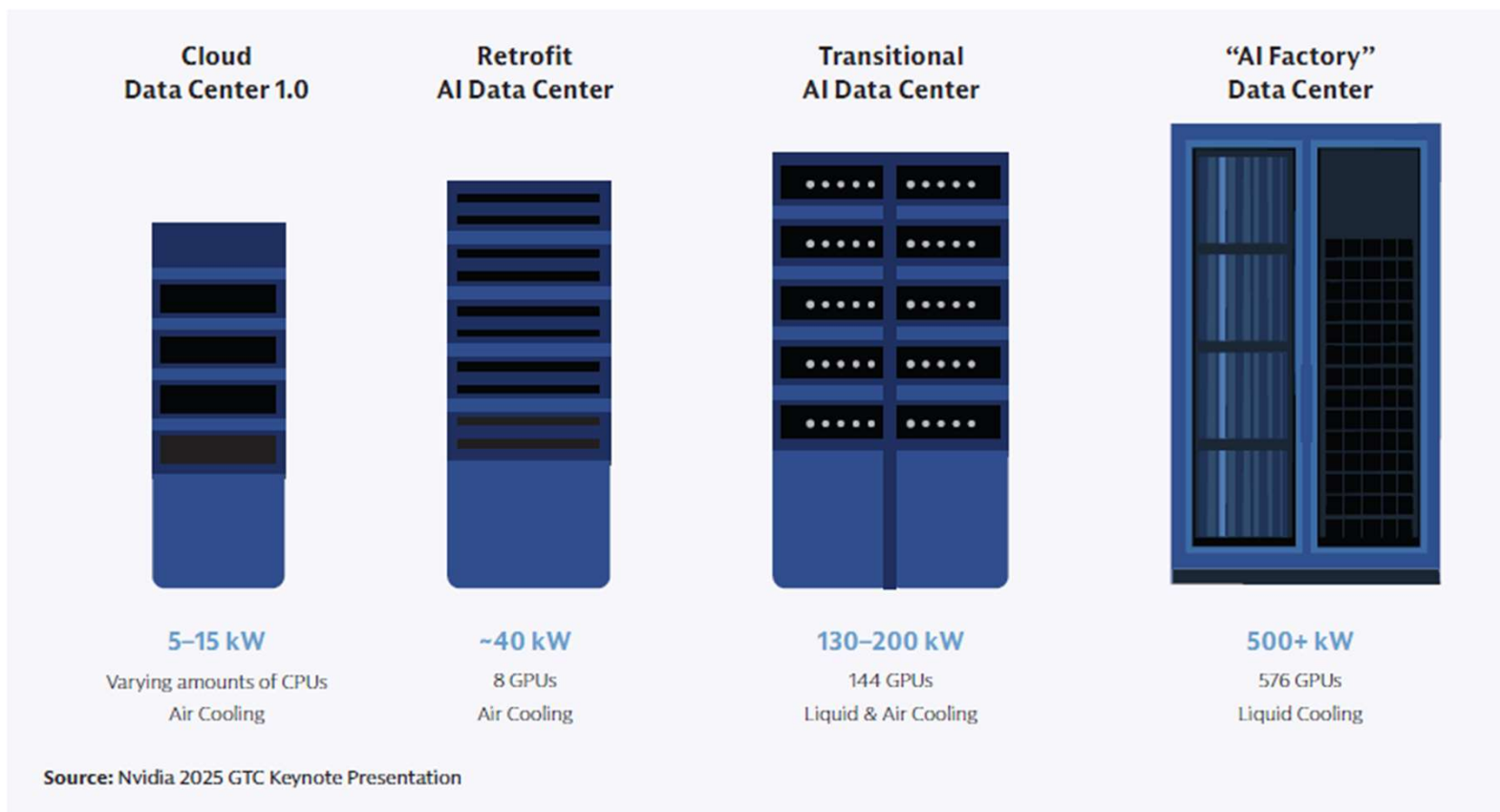
TDP of Data Center GPUs



Requiring a shift to 2-Phase Liquid Cooling



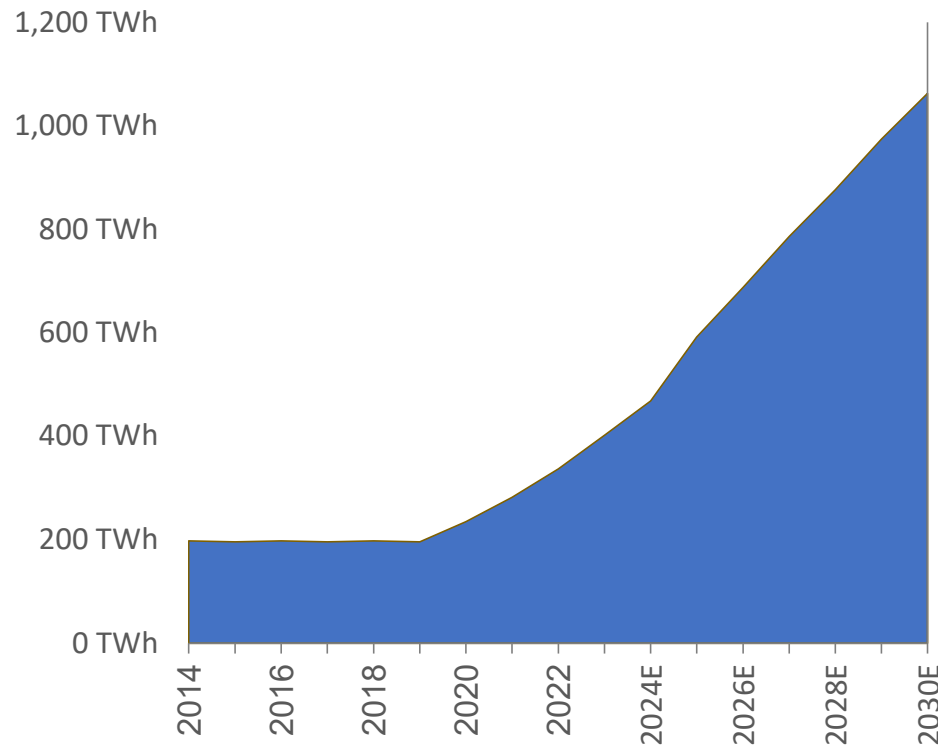
AI Factory Rack Density trending to 100x



NEW AI scale driving unprecedented energy demand



Projected Worldwide Data Center Power Demands



Recent ~5GW Announcements



OpenAI and Oracle to Build 4.5GW AI Data Centre Capacity

By Ben Crabb
July 23, 2023 • 4 min

in X O

New partnership expands OpenAI's Stargate infrastructure to 4.5 gigawatts, enabling two million AI chips and creating over 100,000 jobs across the US

OpenAI has announced a major partnership with Oracle to expand its AI-focused Stargate data centre programme, adding 4.5 gigawatts (GW) of new compute capacity.



Mark Zuckerberg says Meta is building a 5GW AI data center

Maxwell Zeff 9:16 AM PDT · July 14, 2023

Meta is currently building out a data center, called Hyperion, which the company expects to supply its new AI lab with five gigawatts (GW) of computational power, CEO Mark Zuckerberg said in a [Monday post](#) on Threads.

AI Factories are hungry for power ... the industry needs a net-zero energy consumption solution

ZutaCore developed a sustainable net-zero liquid cooling and heat reuse solution

Creating Unprecedented Efficiency & Sustainability Challenges

Energy consumption

- DC's consumed 460 TWh (2022); 2% of global electricity use
- Average Power Usage Effectiveness (PUE): 1.67 PUE



Heat removal and reuse

- 1,656 petajoules (PJ) of heat generated annually (equivalent of district heating for 100 million US homes)



Excessive water use

- 2.5 T gallons/ year
- 0.3% of the global water supply
- 90% of the water evaporates



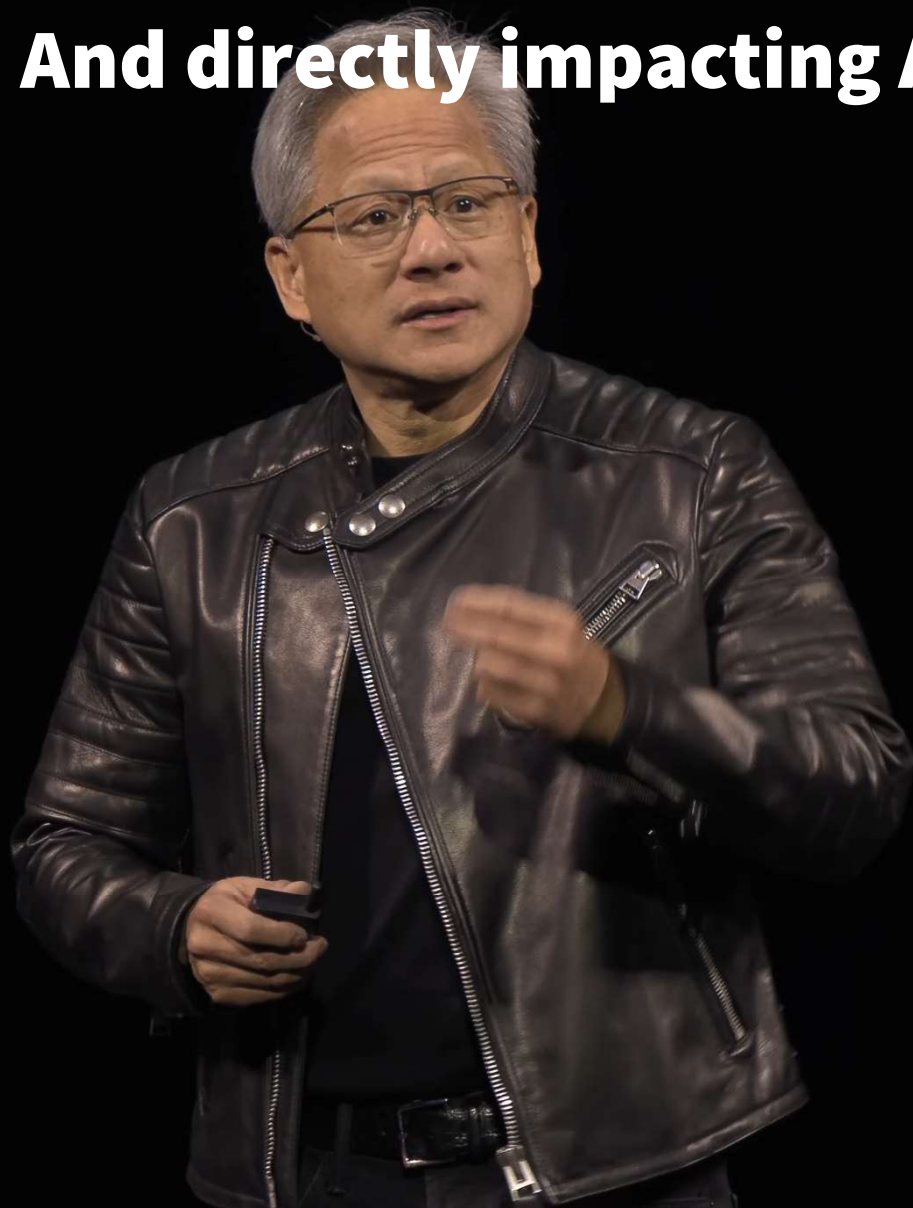
Environmental impact

- 115M- 230M metric tons of CO2
- 2-3% of global emissions



ZutaCore: Driving Sustainability with Net-Zero Data Centers

And directly impacting AI Factory profitability



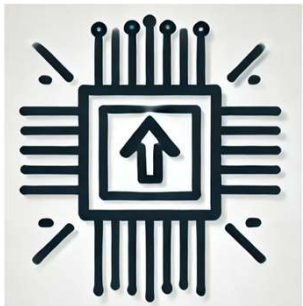
“Every single data center in the future will be power limited. Your revenues are power limited” Jensen Huang, GTC 2025

Up to half of data center energy is currently spent cooling – instead of on compute.



ZutaCore's Value Proposition

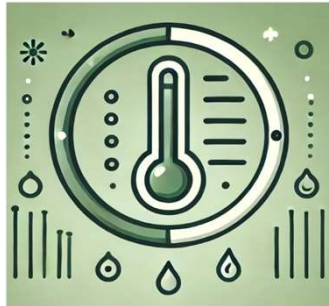
Maximum Compute



~1.2X Higher Compute Densities

More tokens per watt

Thermal Management



Supports chip TDP $\geq 2800W$

$\geq 100kW$ AI Workload Racks

Cost Efficient



$>50\%$ TCO savings*

30% more compute power*
50% white space save*

No Water (WUE = ~0)



No risk to servers due to water leakages

Increases sustainability

Energy Efficient / Energy Reuse



~82% Lower energy consumption*

PUE ≤ 1.05

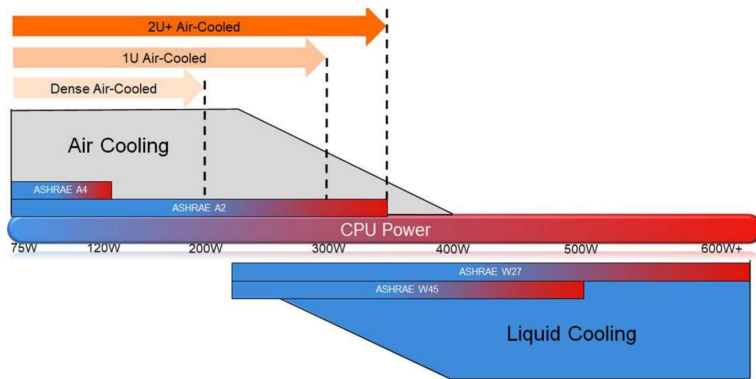
Enables High Energy Reuse

*Compared to air cooling

Current cooling technologies are limited



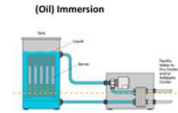
Air cooling is no longer the solution...



- Recommended to upto 350W chips
- 1 watt cooling per 1 watt computation

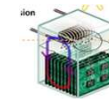
... and other liquid cooling solutions have limitations

Single-phase immersion



- Limited to 500W chips
- Oil potentially flammable
- Reduces equipment lifetime

Two-phase immersion



- Heavy equipment
- Difficult maintenance involving cranes
- Reduces IT equipment lifetime

Single-phase direct-to-chip



- Risk of leaks damaging IT equipment
- Requires regular maintenance
- Less effective with powerful GPUs

Two-phase flow boiling



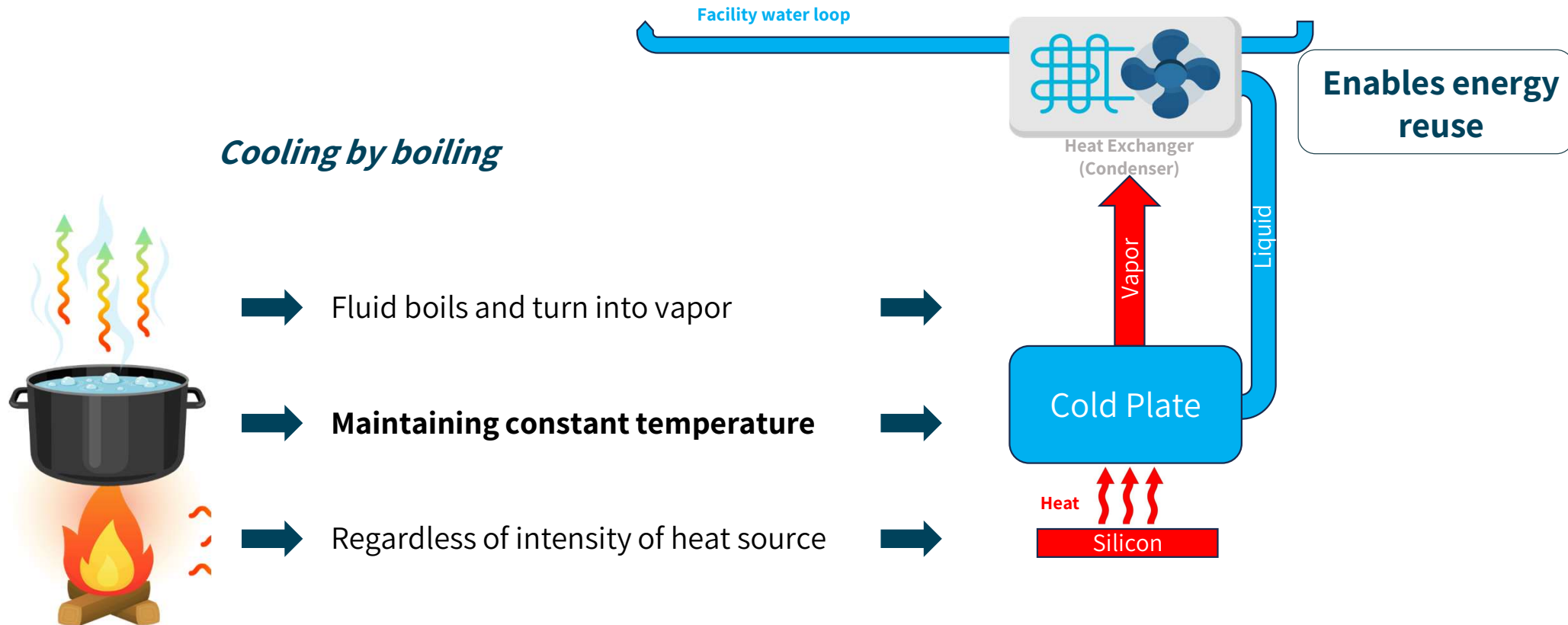
- Difference in performance
- Less effective at cooling hotspots
- Less cost-effective energy recovery

ZutaCore: Two-phase pool boiling



Only currently-available, future-proof technology to deliver cost-effective, scalable, energy-efficient cooling for the hottest chips and enabling heat capture and reuse

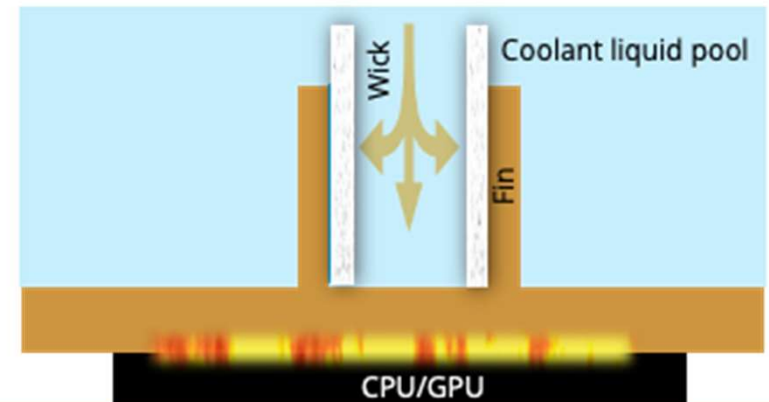
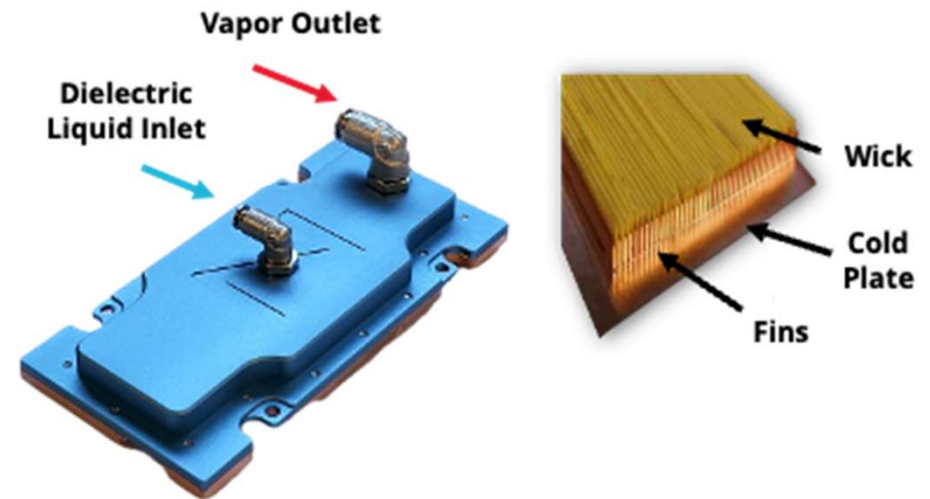
ZutaCore's HyperCool: 2-phase pool boiling direct to chip liquid cooling



Waterless POOL Boiling: Exclusive to ZutaCore®



- + **Direct-to-chip, two-phase cooling** — heat turns liquid to vapor on the chip for maximum efficiency
- + **Absorbs extreme thermal loads** — far beyond single-phase systems
- + **Self-regulating & zero-latency** — keeps chips at safe, stable temperatures under any workload
- + **AI-ready resilience** — handles rapid power swings without thermal shocks
- + **Longer silicon lifespan** — uniform cooling reduces stress and extends hardware life
- + **Dramatically cuts energy use** — outperforming legacy air and single-phase cooling

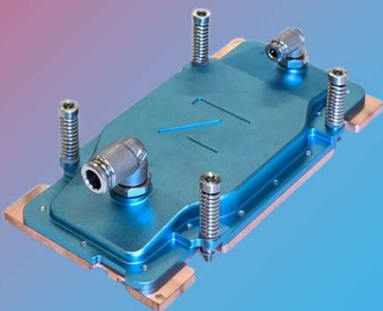


HyperCool® - End-to-End, Two-Phase Cooling Built for AI



Two-Phase Cold Plates

- Manages heat dissipation
- 2500+ Watts of TDP
- Cuts power usage by 82%
- PUE of ~1.04



Heat Rejection in-rack CDU

- 120kW in rack cooling capacity
- Self-contained, fully autonomous with sensors, pumps and multi-leak detection
- No data downtime

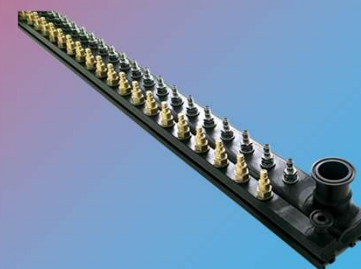


Two-phase Sidecar

- 240kW cooling capacity
- 80% less pumping power than single-phase
- 0.3 liters of heat transfer fluid per minute per kW*
- 20-40% higher heat exchange efficiency

Manifold

- Integrates seamlessly with standard and custom racks
- Up to 42 servers for left and right installation



Software Defined Cooling

- Automates resource provisioning and management
- Server performance data and analytics



Enabling a Future-proof, Waterless DC Architecture



Single 2-phase loop, direct heat removal chip-to-ambient

Enables → **Totally Waterless Data Center** architecture

- No water in the servers
- No water in the white space
- No evaporation of water for cooling

Whilst achieving **best-in-class energy efficiency**

- Modular design with ultra-low mechanical PUE of ~1.03 (climate dependent)
- Enables significant heat capture for energy reuse

SoftBank, Foxconn Partner with ZutaCore



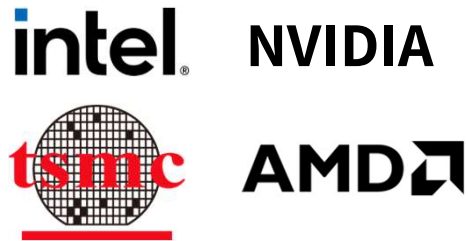
SoftBank and Foxconn implemented ZutaCore's two-phase DLC technology in an AI server using NVIDIA H200 GPUs



Achieved pPUE (partial Power Usage Effectiveness) of 1.03 per rack for cooling efficiency

Proven Partnerships Across the Data Center Ecosystem

Chip Manufacturers



Two-phase pool-boiling cold plates

NVIDIA HGX H200
NVIDIA HGX B200
NVIDIA HGX B300

AMD Instinct™ Mi325X
AMD Instinct™ Mi355X

Server OEMs/ODMs



Factory-warranted with ZutaCore® inside:

AsRockRack NVIDIA HGX H200 and B300

Compal AMD Instinct™ MI325X GPUs and the upcoming MI355X
Compal 4-Node Dual Processor

Data Center & Energy Ecosystem



Key Customers





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