

XPerf and Akash Systems Collaborate to Deliver Auditable Energy and Thermal Impact of Diamond Cooling® on AMD Instinct™ MI350X AI Servers

First-of-its-kind collaboration pairs documenting up to 15% token-per-second throughput improvement, 22% additional FLOPs per watt and up to 10°C GPU temperature reductions.

ROUND ROCK, TX, UNITED STATES, June 9, 2026 /EINPresswire.com/ -- Akash Systems, pioneer of the world's first Diamond Cooled AI servers, and XPerf Inc., an AI infrastructure software company specializing in GPU cluster validation and optimization, today announced a first-of-its-kind collaboration pairing Diamond Cooling® technology with AI-native rack validation, delivering auditable, tangible measurement of the energy savings and thermal impact of Akash Systems' patented Diamond Cooling® on AMD Instinct™ MI350X AI server systems. Using XPerf ClusterReady® as the rack-level validation platform, the two companies are jointly delivering documented proof of Diamond Cooling®'s real-world impact — quantifying watt-per-token efficiency and tokens-per-second throughput gains before a single production workload runs.

“ We are excited as this collaboration allows us to use ClusterReady® to provide measurable, auditable proof of the energy savings and heat reduction that Akash Systems' Diamond Cooling® delivers.”
Alex Carter, Founder & CEO, XPerf Inc.

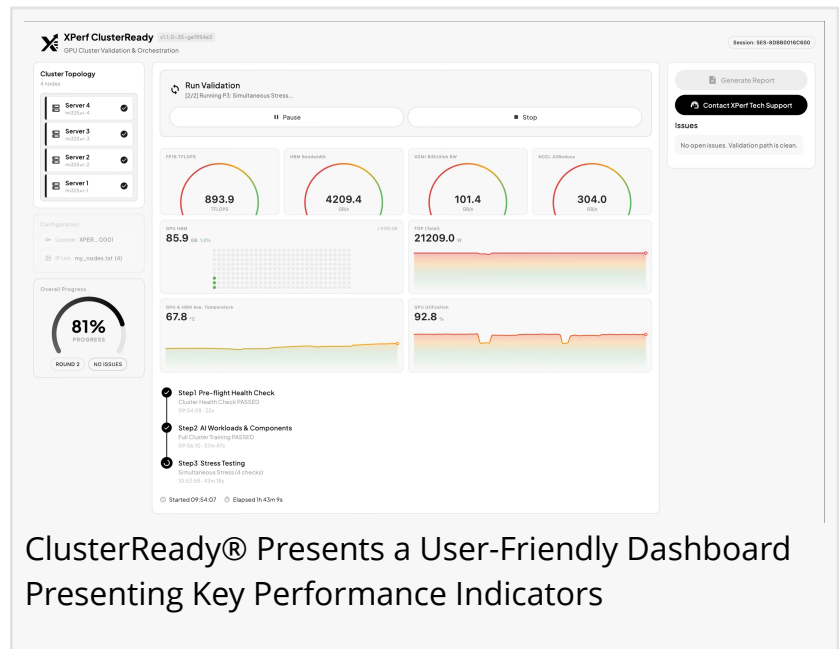
Akash Systems' Diamond Cooling®: Measured Energy and Thermal Impact

Akash Systems' patented Diamond Cooling® technology removes heat five times faster than copper, the industry standard material for heat management. This Diamond Cooling® solution is complementary to air and liquid cooling on servers, improving heat transfer for heat sinks and cold plates alike. Through the collaboration with XPerf, these thermal advantages are now quantified and documented under real-world AI workloads at the rack level. Applied to the AMD Instinct™ MI350X server, ClusterReady®-validated Diamond Cooled MI350X servers deliver up to:

- 10°C GPU temperature reduction enabling sustained throttle-free performance.

- 22% additional FLOPs/watt system improvement in standard ambient data center temperatures
- 15% token/second throughput improvement in high-ambient data center environments
- 120°F ambient inlet temperatures with throttle free performance.
- \$1 million in incremental cash flow per server over the system lifetime.

To translate these thermal gains into auditable customer outcomes, XPerf ClusterReady® exercises the full rack under AI workloads — surfacing system-level behavior including interconnect bandwidth, RCCL communication throughput, and sustained-load thermal performance that conventional L11/L12 component testing cannot capture. Together, the two companies ensure that Diamond Cooling®’s energy and heat advantages are measurable, documented, and delivered to customers with confidence.



ClusterReady® Presents a User-Friendly Dashboard Presenting Key Performance Indicators

How ClusterReady® Quantifies Diamond Cooling®’s Impact

ClusterReady®’s three-stage validation pipeline — Pre-Flight Health Check, AI Workload Validation, and Stress Testing — exercises every GPU, memory subsystem, interconnect, and network fabric layer under conditions that mirror live production. The platform delivers:

- 10× Faster Validation — XPerf compresses full rack validation from weeks to hours or days, enabling Akash Systems to deliver known-performing racks faster and bill sooner.
- Workload Performance Baselines — Every rack ships with a ClusterReady® validation report documenting tokens-per-second output across inference and training workloads, giving customers a revenue-linked performance baseline at delivery.
- Hidden Issue Detection — ClusterReady®’s proprietary test suite surfaces what standard testing misses, including RCCL bandwidth degradation, thermal-induced throttling under sustained load, and interconnect misconfiguration. In prior deployments, RCCL configuration optimization alone yielded 10× communication bandwidth gains.
- Root Cause + Suggested Remediation — XPerf’s algorithms pair every detected issue with suggested remediation and optimization guidance, bringing the system to its full hardware potential without requiring deep internal performance engineering expertise.

In XPerf’s prior work with MiTAC Computing on AMD MI325X racks, ClusterReady® demonstrated 20% higher performance than AMD’s published FLUX.1-dev benchmark results, 95.8% scaling efficiency from single node to four nodes, and 33,695 tokens per second on Llama 2 70B single-node inference — providing the proven validation methodology that Akash Systems and XPerf

are now applying jointly to document Diamond Cooling®'s energy and thermal impact on MI350X deployments.

Auditable Outcomes: Watt-Per-Token and Energy Savings, Documented

The Akash Systems and XPerf collaboration produces a uniquely auditable Watt-per-Token: Diamond Cooling®'s elimination of thermal throttling under sustained load, confirmed and quantified by ClusterReady®'s rack-level validation under real AI workloads. Through this collaboration, enterprise customers receive each rack that arrives pre-validated with documented proof of Diamond Cooling®'s thermal and energy impact. Key outcomes include:

- Validated AI inference and training throughput (tokens/sec) documented at delivery
- Measurable FLOPs-per-watt improvements, confirmed under real-world AI workloads
- Rack-level optimization steps prescribed and applied before deployment
- 10× faster validation — hours, not weeks — accelerating time to revenue

"We are excited about our collaboration with Akash Systems. This collaboration allows us to use ClusterReady® to provide measurable, auditable proof of the energy savings and heat reduction that Akash Systems' Diamond Cooling® delivers. Akash Systems has built the most thermally efficient AI servers in the industry, and ClusterReady® is what converts that thermal advantage into a documented, customer-ready performance record at the rack level — before customers ever run their first workload."

— Alex Carter, Founder & CEO, XPerf Inc.

"Diamond Cooling® removes the thermal ceiling from AI compute — our servers run cooler, faster, and more efficiently than anything else on the market, and now we can prove it. Working with XPerf, we can show customers exactly how much energy our Diamond Cooled servers save and how much heat it eliminates, in auditable numbers tied to real-world AI workloads. That combination — the world's best cooling, verified by the industry's fastest validation platform — sets the new standard for enterprise-grade AI infrastructure. Customers get that proof on Day 1."

— Pamit Surana, Co-Founder & CCO, Akash Systems

Availability

ClusterReady® is commercially available and designed for rapid deployment in supported environments. To learn more or schedule a ClusterReady® validation demo, visit

xperf.ai/clusterready

To learn more about diamond-cooled AI servers, visit www.akashsystems.com

About XPerf Inc.

Founded by ex-Intel engineers with deep experience deploying GPU clusters at scale, XPerf Inc. is an AI infrastructure software company building the control plane for heterogeneous data centers. Its product — ClusterReady®, which validates AI racks and clusters 10× faster than L11/L12 workflows using real AI workloads, and OpsPilot®, which autonomously predict and

resolves GPU cluster failures on-premise — cover the full cluster lifecycle from pre-production validation to autonomous operations. XPerf Inc. is a member of NVIDIA Inception, CNCF, and the gBETA accelerator program.

Learn more: xperf.ai

About Akash Systems

Akash Systems is the pioneer in Diamond Cooling® technology for AI servers and other heat-intensive electronic environments. First developed and deployed in partnership with NASA for satellites, Akash Systems is now providing its proprietary Diamond Cooling solutions for GPU, CPU, and memory systems to help address energy and performance challenges in the rapidly growing AI data center sector in the U.S. and globally. Akash is backed by leading venture capital investors Khosla Ventures and Founders Fund. Learn more at www.akashsystems.com.

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Forward-Looking Statements: This press release contains forward-looking statements regarding XPerf's and Akash Systems' products, validated performance results, and related deployment outcomes. Neither XPerf Inc. nor Akash Systems makes any guarantee of future performance outcomes. Performance results cited herein are based on internal testing conducted by XPerf Inc. in collaboration with MiTAC Computing (AMD MI325X configuration) and are presented as indicative of the ClusterReady® platform's optimization capabilities; MI350X-specific outcomes may vary based on system configuration, software versions, and workloads. XPerf undertakes no obligation to update these statements after the date of this release. Akash Systems and XPerf intend to extend this collaboration to future GPU architectures as diamond cooling technology scales across the AI data center market.

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