Frore Systems Keeps Pace with NVIDIA, Enabling Sustained Edge AI Performance with AirJet®PAK 5C-G2

SAN JOSE, California – January 2, 2026 – As NVIDIA continues to push edge AI performance forward, thermal limits are increasingly the primary constraint on system capability. Frore Systems today announced AirJet®PAK 5C-G2, its next-generation solid-state active cooling plug and play module designed to unlock sustained performance for advanced AI Systems. AirJet PAK is the world's first solid-state active cooling solution designed to complement a wide range of edge AISoMs, including NVIDIA's Jetson Orin Nano, Nano Super, NX Super & Orin AGX modules, as well as SoMs from Qualcomm, AMD/Xilinx, and more. The AirJet PAK can be directly mounted on the SoM, removing heat and unleashing full Edge AI performance.

AirJet®PAK 5C-G2 will be demonstrated live at CES, showcasing sustained AI performance on the NVIDIA® Jetson Orin™ NX Super.

NVIDIA's Jetson Orin NX Super delivers significantly higher AI throughput for demanding edge workloads such as robotics, machine vision, and real-time analytics. But without adequate cooling, that performance cannot be sustained. Passive heat sinks quickly reach thermal limits, while fan-based solutions introduce noise, reliability risks, and environmental vulnerabilities. AirJet®PAK 5C-G2 removes these constraints.

Designed to Keep Up with NVIDIA's Edge AI Roadmap

AirJet®PAK 5C-G2 is a fully self-contained, plug-and-play solid-state active cooling module that delivers up to 45 W of net heat dissipation, enabling Jetson Orin NX Super platforms to maintain peak performance under continuous workloads.

Each AirJet®PAK 5C-G2 integrates five AirJet®Mini G2 solid-state cooling chips — the same next-generation AirJet architecture that earned Frore Systems its third consecutive CES Innovation Award — delivering higher thermal headroom in a compact, production-ready module.

Designed to mount directly on AI SoMs, AirJet®PAK 5C-G2 enables edge platforms to operate reliably even in compact, light, silent, vibration-free, dustproof, and water-resistant enclosures.

Why Sustained Performance Matters at the Edge

Industrial edge AI systems run **continuous workloads**, not short bursts. Applications such as robotics, vision processing, and real-time sensor analytics must operate reliably for extended periods — often in harsh or space-constrained environments.

Without advanced cooling, these systems are forced to throttle, reducing throughput and undermining the value of AI acceleration. The **AirJet®PAK 5C-G2 ensures NVIDIA Jetson Orin NX Super systems can deliver consistent, sustained AI performance where it matters most — in real world applications.**

AirJet®PAK 5C-G2 combines multiple AirJet Mini G2 chips into a single autonomous active heat-sink module designed for high-performance edge AI.

Key capabilities include:

- **Net heat dissipation: 45 W**
- **Supported AI performance:** up to **185 TOPS** on NVIDIA Jetson platforms
- **Back pressure: 1,750 Pa**, enabling airflow through dustproof and water-resistant filters
- **Noise level: 27? dBA**, enabling silent operation
- **Form factor: 100 × 65 × 10 mm, supporting ultra-compact systems**
- **Weight:** just **101 g, supporting light weight systems**

Multiple **AirJet®PAK** modules can be combined to support higher-power edge platforms, enabling scalable cooling as AI workloads continue to grow.

Enabling Smaller, Lighter, More Reliable Edge AI Systems

Compared to large passive heat sinks or fan-based cooling solutions, systems using **AirJet®PAK 5C-G2** can be:

- **Significantly smaller and lighter**
- **Protected** against dust and water
- **Quieter and more reliable** than fans over long operational lifetimes

These attributes are increasingly critical as edge AI expands into factories, transportation systems, smart infrastructure, healthcare, and other mission-critical environments.

"NVIDIA continues to raise the bar for edge AI performance, and cooling has to evolve just as fast," said Seshu Madhavapeddy, CEO and Founder of Frore Systems. "AirJet® PAK 5C-G2 builds on the same AirJet Mini G2 technology recognized with a CES Innovation Award, enabling Jetson Orin NX Super systems to sustain high performance without the compromises of fans or bulky heatsinks."

Live Demonstrations at CES 2026: Frore Systems will demonstrate Edge AI devices with AirJet and Airjet PAK solid-state active air cooling featuring Industrial Edge IoT platforms and consumer products, and Qualcomm Snapdragon X2 Elite compute reference platforms. Additional demonstrations include LiquidJet live at **CES 2026**, showcasing: LiquidJet coldplate performance for cooling **1,950W NVIDIA Rubin**, **600W/cm² extreme hotspot cooling**, and **single-reticle 1,200W ASIC cooling.**

Experience the future of AI performance in the Frore Systems Demonstration Room, **January 6–9**, Venetian Expo, Level 2, Room **2401B**, Las Vegas.

About Frore Systems

Frore Systems is a pioneer in advanced thermal technologies that unleash performance across data centers and edge devices. The company's flagship solutions include **LiquidJet™**, a multi-stage 3D short-loop jetchannel liquid cooling coldplate for data centers delivering higher GPU performance, improved PUE and reduced TCO; and **AirJet®**, the world's first solid-state active cooling chip used in consumer, industrial, and IoT markets delivering higher performance in ultra-compact, silent, light, dustproof and water-resistant edge devices. Frore's patented cooling technologies are integrated into products from major OEMs and system builders worldwide. Frore Systems is headquartered in Silicon Valley, with manufacturing operations in Taiwan.

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