

Frore Systems and AirJet® recognized by the CES Innovation Awards for the second year running



AirJet Mini Sport, the solid-state active cooling chip designed to support IP68 waterproof devices, named as Honoree in CES 2025 Innovation Awards

SAN JOSE, California – January 6, 2025: Frore Systems today announced that their **AirJet Mini Sport** solid-state active cooling chip, designed to support IP68 waterproof devices, has been named Honoree in CES 2025 Innovation Awards program, in the category of Computer Hardware & Components. The annual CES Innovation Awards program is owned and produced by the Consumer Technology Association (CTA)[®]. An elite panel of industry expert judges, including members of the media, designers, engineers and more, recognize and honor exceptional designs and engineering in technology that tackle global challenges and drive meaningful change based on innovation, engineering and functionality, aesthetic and design. The 2025 awards program received a record-breaking number of submissions, over 3400, a 13% increase from CES 2024.

Forre Systems was honored to receive this recognition from the CES Innovation Awards program for the second year running. In 2024, the CES Innovation Awards program, bestowed the “Best of Innovation Awards” Honoree for AirJet Mini, the world’s first solid-state active cooling chip, in the Embedded Technologies category. AirJet also received CES® 2024 Innovation Awards Honoree in both the Computer Hardware & Components, and Embedded Technologies categories.

This year's winner, the AirJet®Mini *Sport*, enables active cooling in IP68 devices. Building on the success of its pioneering AirJet Mini, Frore Systems enhanced the capabilities of its innovative solid-state active cooling chip to support devices with industry's highest IP68 waterproof rating. In addition to its waterproof capabilities, AirJet Mini *Sport* retains all the intelligent features of the AirJet Mini Slim including dust resilience with self-cleaning, and thermoception. The AirJet Mini *Sport* is a fully self-contained heat removal solution, that weighs only 7 grams, is just 2.65mm thick with a tiny 27.5mm x 41.5mm footprint, and silently removes 5.25 W of heat per chip.

The demand for increased device performance has surged, driven by advancements in Edge AI and On-Device AI applications. While the latest processors can deliver mind blowing performance, within seconds they are forced to throttle, or slow down, to prevent overheating which can severely damage device

electronics. Traditional fan based cooling, which is not waterproof or dustproof, cannot be used in IP68 devices, leaving manufacturers unable to remove enough heat to enable the growing demand for increased performance.

With the new waterproof AirJet Mini *Sport*, IP68 devices like smartphones and action cameras can achieve a performance boost of up to 80% while remaining waterproof and dustproof, and without having to compromise on the small form factor users love. The AirJet Mini *Sport* meets the rigorous IP68 standard, demonstrating full performance recovery after submersion in over 1.5 meters of water for 30 minutes. The AirJet Mini *Sport* makes increasing device performance a breeze, enhancing AI processing capabilities in faster, silent, thinner, lighter, vibration free, dustproof and waterproof devices that can be used in any environment.

"We are thrilled to be honored by CES® 2024 Best of Innovation Awards for the second consecutive year. AirJet Mini Sport exemplifies the criteria evaluated for these awards – innovative design and engineering features." said Dr. Seshu Madhavapeddy, founder and CEO of Frore Systems. "Consumers demand increased performance in compact devices they can use anywhere, on land or in water. AirJet unleashes device performance, now enabling users to do more with their IP68 dustproof and waterproof devices. We are thrilled that CES 2025 continues to recognize the significant impact we are making in numerous device categories."

What makes AirJet truly compelling is not only its innovation in efficient heat removal, but its role as an enabler for manufacturers to unlock performance and innovation in a wide range of applications. By solving the challenge of heat, manufacturers can now design products that fully harness the powerful new technology available on the market. This opens a world of possibilities for advancements in various industries, making AirJet a game-changer in the consumer electronics landscape like those exhibiting at CES 2025.

Visit the CES Innovation Awards® Showcase, to see the AirJet Mini Sport displayed as a 2025 Honorees during CES 2025 at the Venetian Expo, Hall A, Booth #50043 – one of the most popular destinations at CES. Then, take a short walk down the hall to experience the future of AI performance and more, in the Frore Systems Demonstration Room.

Frore Systems will be giving everyone the opportunity to see their technology firsthand, showcasing a range of commercially available products featuring AirJet solid-state active cooling. Frore Systems will also be demonstrating new proof-of-concepts, such as Samsung Galaxy Book4 Edge and Apple iPad Pro, both delivering a 50% performance boost in performance after being upgraded with AirJet chips, and several Nvidia Jetson Orin Edge AI platforms upgraded with AirJet PAKs to speed up AI performance in industrial grade casings that are ultra compact, silent, vibration free, dustproof and water-resistant.

See all the latest AirJet applications, January 7 – 10 in Las Vegas, at the Venetian Expo on Level 2, in Room 2401B.

About Frore Systems

Frore Systems is the developer of breakthrough thermal technology for electronic and consumer devices. The company's active cooling solutions, the AirJet®Mini, AirJet®Mini Slim, AirJet®Mini Sport, and AirJet®PAKs, are integrated into devices to remove heat silently, resulting in major performance gains and enabling thinner, lighter, silent, vibration free, dustproof and water-resistant devices. Frore Systems is headquartered in San Jose, CA with an office and manufacturing facility in Taiwan. For more information, please visit <https://froresystems.com/>

About Consumer Technology Association:

As North America's largest technology trade association, CTA® is the tech sector. Our members are the world's leading innovators – from startups to global brands– helping support more than 18 million American jobs. CTA owns and produces CES® – the most powerful tech event in the world. Find us at CTA.tech. Follow us @CTAtech.

About Consumer Technology Association:

The mission of the Consumer Technology Association (CTA)® is to help innovators of all sizes grow their business. Technology is about changing people's lives for the better. It's about ideas, large and small, that keep us connected, that help us move and that spark even bigger ideas. CTA owns and produces CES® – the most powerful tech event in the world. Find us at CTA.tech. Follow us @CTAtech.

About CES:

CES® is the most powerful tech event in the world – the proving ground for breakthrough technologies and global innovators. This is where the world's biggest brands do business and meet new partners, and the sharpest innovators hit the stage. Owned and produced by the Consumer Technology Association (CTA)®, CES features every aspect of the tech sector. CES 2024 will take place Jan. 9-12, 2024, in Las Vegas. Learn more at [CES.tech](https://ces.tech) and follow CES on social.

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The advertisement features a diver in a yellow and black wetsuit, blue goggles, and a scuba tank, holding a small electronic device. The background is a vibrant underwater scene with coral and two clownfish. In the top left corner, there is a close-up of the AirJet Mini Sport chip, which is a small, rectangular, gold-colored component with the Frore Systems logo and product name. The text 'AirJet® Mini Sport' is prominently displayed in a large, white, sans-serif font. Below it, in a smaller white font, is the tagline 'The Waterproof Solid-State Active Cooling Chip that boosts performance up to 80% in IP68 Mobile Devices'. At the bottom, a dark blue banner contains the text 'Unleashing the Performance of Mobile Devices on Land and in Water' in a white, bold, sans-serif font.

AirJet® Mini Sport

The Waterproof Solid-State Active Cooling Chip that boosts performance up to 80% in IP68 Mobile Devices


Unleashing the Performance of Mobile Devices on Land and in Water

What does IP68 Mean

Ingress protection ratings (aka international protection ratings) are a standard set forth by the [International Electrotechnical Commission](#). According to the organization, the codes are designed as a "system for classifying the degrees of protection provided by the enclosures of electrical equipment. The first number in the rating code represents the amount of protection provided against the entry of foreign solid objects, such as sand or dust. These protection levels range from a low of 0 to a high of 6. The second number represents the degree of protection against the entry of moisture or liquid, with protection levels ranging from a low of 0 to a high of 9.

Ingress protection (IP) ratings guide

IP ratings are represented by combining the first and second digits of the below columns

1st numeral - solid foreign objects			2nd numeral - water		
0	No protection		0	No protection	
1	Protected against solid foreign objects of 50 mm Ø and greater		1	Protected against vertically falling water drops	
2	Protected against solid foreign objects of 12,5 mm Ø and greater		2	Protected against vertically falling water drops when enclosure tilted up to 15°	
3	Protected against solid foreign objects of 2,5 mm Ø and greater		3	Protected against spraying water	
4	Protected against solid foreign objects of 1,0 mm Ø and greater		4	Protected against splashing water	
5	Dust-protected		5	Protected against water jets	
6	Dust-tight		6	Protected against powerful water jets	
Example:  IP 65 → Protected against water jets → Dust-tight			7	Protected against the effects of temporary immersion in water	
			8	Protected against the effects of continuous immersion in water	
			9	Protected against high pressure and temperature water jets	