



AirJet® PAK 5C

Designed to complement AI SoM Modules like NVIDIA's Jetson Orin to unleash AI Performance.

- Fully self contained, plug and play thermal solution that includes multiple AirJet chips and drive circuitry
- Mounts directly on AI SoM Modules like NVIDIA's Jetson Orin
- Autonomous operation
- Thin, silent, vibration free, dustproof, and water-resistant
- Supports up to 100 TOPS on NVIDIA Jetson
- Dissipates up to net 34 W of heat @ 25°C ambient, T_j 115°C

Heat is the biggest bottleneck in computing, but cooling is the only aspect of modern day computing that still uses century old technology. The need for vastly improved cooling to enable the massive processing required by AI is increasing rapidly, and with the forecast demand for Edge AI estimated to increase by over 300% by 2030, it will not slow down anytime soon.

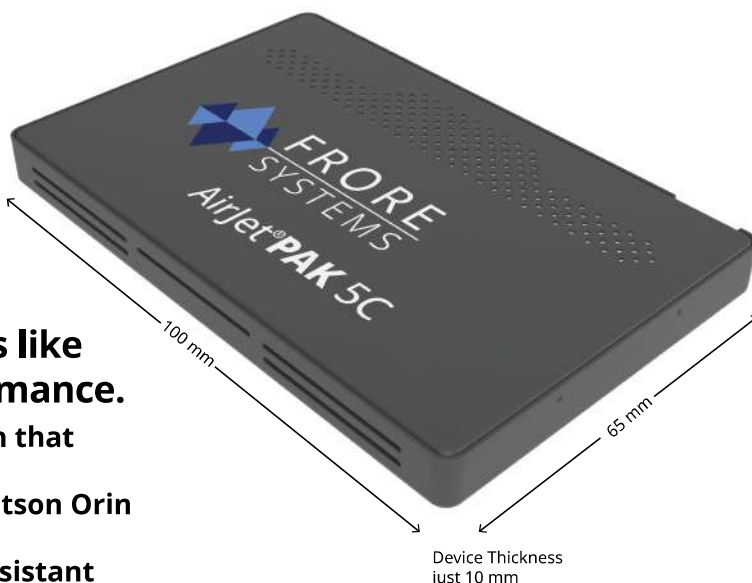
The **AirJet PAK**, the world's first solid-state active cooling solution for Edge AI, leverages the revolutionary active cooling AirJet chip. The **AirJet PAK 5C** is a fully self contained active heat sink module.

Powerful Heat Removal - AirJet PAK 5C removes net 34 W of heat at a silent 29 dBA, while consuming a maximum of 6.5 W of power, when integrated into an industrial compute platform at 25°C ambient, with a spreader temperature of 90°C, outperforming fans in compact Edge AI devices.

Unleashing AI Performance - Designed to work seamlessly with AI SoM Modules like NVIDIA's Jetson Orin, the **AirJet PAK 5C** is just 10 mm thick. This ultra-slim profile opens up new possibilities for manufacturers catering to customer demand for higher performance in more compact, silent, vibration free, dustproof, and water-resistant devices.

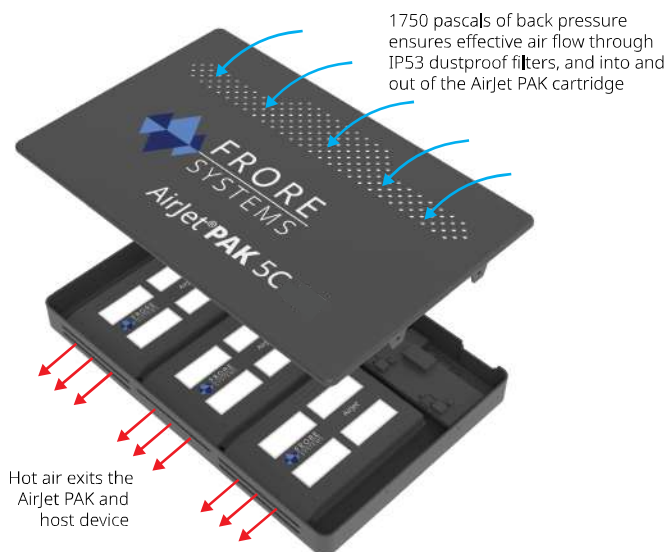
Metric

Total net heat dissipation (@ 25°C ambient, T _j 115°C)	34 W
Maximum noise (at 50cm)	29 dBA
Maximum power consumption	6.5 W
Input Voltage	12 V
Back pressure	1750 Pa
Dimensions (width x length x thickness)	100 x 65 x 10 mm
Weight	100 g



AirJet PAK	NVIDIA Jetson	TOPS	Power
AirJet PAK 5C	Orin NX 16GB (@ 25°C ambient, T _j 95°C)	100	27 W
2x AirJet PAK 5C	AGX Orin 64 GB (@ 25°C ambient, T _j 95°C)	250	54 W

Each AirJet PAK 5C contains 5 AirJet Chips - the world's first solid-state active cooling chip.



AirJet® PAK 5C

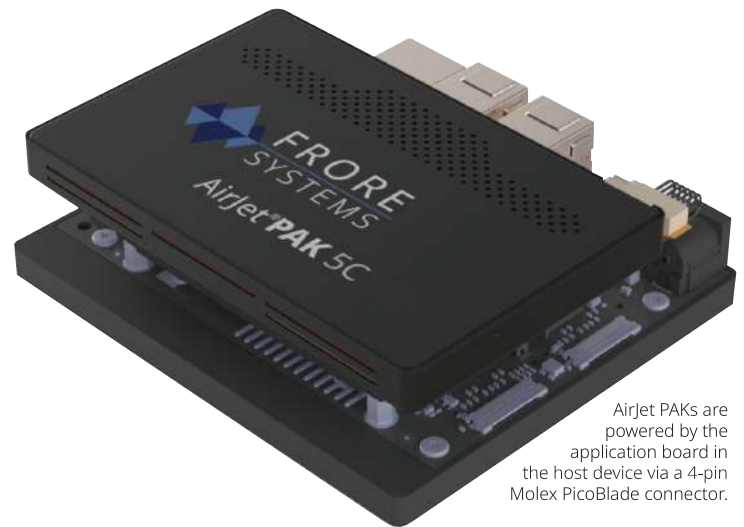
Sustained Performance and Reliability

The **AirJet PAK** generates 1750 Pascals of back pressure, ensuring effective air flow into and out of the cartridge, even when the air vents are covered with IP53 dustproof and water resistant filters. This, together with the **AirJet PAKs** intelligent self-cleaning capabilities, maximizes reliability and ensures the sustained thermal performance of the **AirJet PAK** and, as a result, the sustained high performance of the dustproof host device.

Driven autonomously, the **AirJet PAK** can independently sense the surrounding temperature using Thermoception, an innovation that allows the **AirJet PAK** to optimize its performance, maximizing heat removal without relying on temperature sensors in the host device. All the **AirJet PAK** needs to enable exceptional processor performance is a nominal power source from the host device.

In today's devices, what often determines performance is the capability of the thermal solution, not just the sophistication of the processor.

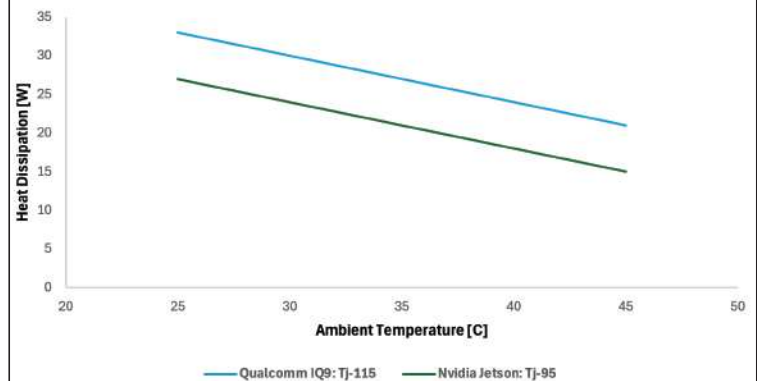
Thanks to **AirJet PAK 5C**, compact Edge AI electronic devices can now deliver on the promise of cutting Edge AI technology. **Do more.**



AirJet PAKs are powered by the application board in the host device via a 4-pin Molex PicoBlade connector.

Designed to work seamlessly with AI SoM Modules like NVIDIA's Jetson Orin Industrial and Smart City Modules

AirJet PAK 5C Heat Dissipation Variation with Ambient Temperature



Cross Section of AirJet® PAK Cartridge Inside Host Device

