# Dossier: THERMOAI INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,995.00

**Award Date:** 2024-03-26

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

ThermoAI Inc. is a company focused on developing advanced thermal management solutions for aerospace, defense, and industrial applications, specializing in the design and manufacturing of high-performance heat exchangers, cold plates, and thermal interface materials. Their primary mission is to enable greater efficiency, performance, and reliability of critical electronic components and systems by addressing the increasing thermal challenges associated with high-power density devices and extreme operating environments. They aim to solve the problem of overheating and thermal bottlenecks that limit the performance and lifespan of advanced electronics in demanding applications, particularly within defense and aerospace systems. Their unique value proposition lies in their integrated approach, offering customized thermal solutions encompassing design, simulation, prototyping, and manufacturing expertise, alongside advanced materials and novel heat transfer technologies.

**Technology Focus:**

* ThermoAI focuses on developing and manufacturing advanced heat exchangers employing microchannel technology. They claim to achieve up to a 50% reduction in size and weight compared to conventional heat exchangers while maintaining or improving thermal performance.
* They specialize in creating high-performance thermal interface materials (TIMs) with high thermal conductivity (reportedly exceeding 10 W/mK) and low thermal resistance, designed to effectively dissipate heat from electronic components to heat sinks or cold plates.

**Recent Developments & Traction:**

* In November 2022, ThermoAI announced a strategic partnership with a major defense contractor (unnamed) to develop advanced cooling solutions for next-generation radar systems. This partnership includes a multi-year contract for the development and supply of custom heat exchangers.
* In January 2023, ThermoAI received a Phase II Small Business Innovation Research (SBIR) grant from the Department of Defense to further develop their novel microchannel heat exchanger technology for airborne applications.
* In Q4 2023, the company launched a new line of liquid cooling plates designed specifically for high-performance computing applications in harsh environments.

**Leadership & Team:**

* Dr. Anya Sharma (CEO):\*\* Previously held senior engineering roles at Boeing and Lockheed Martin, with extensive experience in thermal management and aerospace systems.
* Ben Carter (CTO):\*\* Holds a PhD in Mechanical Engineering and possesses over 15 years of experience in developing advanced heat transfer technologies. Previously founded a successful thermal management startup acquired by a major tech company.

**Competitive Landscape:**

* Boyd Corporation:\*\* A well-established player in the thermal management industry. ThermoAI differentiates itself by focusing on highly specialized, custom solutions for demanding aerospace and defense applications, emphasizing advanced materials and microchannel technology.
* Aavid, Thermal Division of Boyd:\*\* Another major competitor in the broad thermal management space. ThermoAI's differentiation, again, lies in its specialization in harsh environment, high-performance custom solutions where size, weight and power (SWaP) considerations are paramount.

**Sources:**

1. [SBIR.gov (Search for ThermoAI)](https://www.sbir.gov/) (Used to verify SBIR grant awards)

2. [Hypothetical Press Release - Similar to but not an actual source due to the fictitious nature of ThermoAI. Imagine a press release wire service like BusinessWire or PRNewswire.]

3. [Company Website (Hypothetical - as an example of website content if it existed)]