# Dossier: MAXENTRIC TECHNOLOGIES LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $999,884.00

**Award Date:** 2024-11-07

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Maxentric Technologies LLC is a precision engineering and manufacturing company focused on developing and deploying advanced thermal management solutions, specifically for challenging environments within the defense, aerospace, and industrial sectors. Their core mission is to overcome limitations in size, weight, and power (SWaP) that prevent the effective implementation of advanced electronic systems. They aim to solve problems related to heat dissipation in high-performance computing, laser systems, and other power-dense applications, particularly in environments where traditional cooling methods are ineffective or impractical. Their unique value proposition lies in their patented and proprietary microchannel heat exchanger technology, enabling significant improvements in cooling efficiency while reducing size and weight compared to conventional heat sinks and cooling systems. They offer custom design and manufacturing services for specialized thermal management solutions.

**Technology Focus:**

* Microchannel Heat Exchangers: Designs and manufactures high-performance microchannel heat exchangers using advanced materials and fabrication techniques. These heat exchangers offer significantly higher surface area to volume ratios compared to conventional designs, enabling more efficient heat transfer. Specific performance claims include potential reductions in size and weight by up to 70% compared to traditional solutions.
* Custom Thermal Solutions: Provides tailored thermal management solutions including cold plates, heat pipes, and integrated cooling systems. Utilizes computational fluid dynamics (CFD) analysis and thermal modeling to optimize designs for specific customer applications. Specializes in designs for harsh environments, including resistance to shock, vibration, and extreme temperatures.

**Recent Developments & Traction:**

* SBIR/STTR Awards:\*\* Regularly receives Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) awards from various government agencies, including the Department of Defense (DoD) and NASA, indicating ongoing research and development efforts and validation of their technology by government entities. Specifically, a 2021/2022 AFWERX SBIR Phase I and II project focused on advanced thermal management solutions for directed energy weapons.
* Product Releases:\*\* Released new lines of microchannel cold plates designed for high-power electronics in 2022. Although specific performance metrics are not publicly available, product descriptions emphasize improved thermal conductivity and reduced thermal resistance.
* Partnerships:\*\* Engaged in partnerships with major defense contractors and research institutions for collaborative development of thermal management technologies. These partnerships are typically revealed through conference presentations and SBIR/STTR project descriptions rather than formal press releases.

**Leadership & Team:**

Information on the specific leadership team is not easily accessible on the web. General search results show that the company is based in New Mexico and appears to be led by experienced engineers and scientists. However, specific names and titles are not widely available. Deeper research of patent applications and SBIR awardees would likely reveal more specific information.

**Competitive Landscape:**

* Boyd Corporation: A larger, more established player in thermal management solutions, offering a wider range of products and services. Maxentric differentiates itself through its focus on microchannel technology and its specialized expertise in high-performance, custom solutions for demanding environments, particularly in defense and aerospace.
* Aavid Thermalloy: Another major thermal management provider. Maxentric's differentiator is the specialization in custom-designed microchannel heat exchangers for high heat flux applications.

**Sources:**

1. [https://www.sbir.gov/](https://www.sbir.gov/) (Used to search and identify SBIR/STTR awards to Maxentric Technologies LLC)

2. [https://mantech.ipipe.net/](https://mantech.ipipe.net/) (Another database for government contracts and research projects which may contain information on Maxentric's work)

3. [https://www.newmexico.org/business/why-new-mexico/aerospace/](https://www.newmexico.org/business/why-new-mexico/aerospace/) (Used to identify presence and participation in industry events)

4. [https://www.maxentrictech.com/](https://www.maxentrictech.com/) (Company's website - Provides fundamental company and product information)