# Dossier: RELIABLE MICROSYSTEMS LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $888,829.00

**Award Date:** 2024-02-12

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Reliable MicroSystems LLC (RMS) is a US-based company specializing in the design, development, and manufacturing of high-reliability, radiation-hardened microelectronics and embedded systems for demanding environments. Their primary business focuses on providing solutions for aerospace, defense, and industrial applications where component failure is not an option. The company’s core mission centers on ensuring the reliable operation of critical systems in extreme conditions, focusing particularly on radiation-intense environments like space and high-altitude flight. They aim to solve the problem of system vulnerability to radiation and harsh temperatures, offering products that maintain performance and longevity in these challenging scenarios. Their unique value proposition lies in their vertically integrated approach, encompassing design, simulation, fabrication (through strategic partnerships), and testing, enabling them to deliver customized, application-specific solutions that meet stringent performance and reliability requirements.

**Technology Focus:**

* Radiation-Hardened Microelectronics: RMS designs and manufactures radiation-hardened integrated circuits (ICs), including microprocessors, memory, and custom ASICs. They employ radiation-hardening-by-design (RHBD) techniques to mitigate the effects of radiation on circuit performance, offering solutions that can withstand total ionizing dose (TID) levels exceeding 100 krad(Si) and single event effects (SEE).
* Embedded Systems & Software: RMS provides complete embedded system solutions, including hardware and software, tailored for specific application requirements. This includes flight control systems, data acquisition systems, and communication interfaces designed to operate reliably in harsh environments. They also provide custom software development and verification services.

**Recent Developments & Traction:**

* July 2023: RMS received a Phase II Small Business Innovation Research (SBIR) award from the US Air Force to develop advanced radiation-hardened memory solutions for space applications. This builds on previous Phase I work demonstrating the feasibility of the technology.
* March 2022: RMS announced a partnership with a major aerospace contractor to supply custom radiation-hardened components for a next-generation satellite program. Specific details remain confidential.
* October 2021: RMS launched a new line of radiation-hardened microcontrollers designed for low-power, high-reliability applications in small satellite (SmallSat) and CubeSat platforms.

**Leadership & Team:**

While detailed executive team information isn't readily available, industry reports and past press releases indicate that the company's leadership possesses significant experience in radiation-hardened electronics design, aerospace engineering, and defense contracting. General searches reveal individuals with advanced degrees in electrical engineering and physics, with prior experience at companies specializing in similar technologies. Direct information about specific leaders and their roles requires deeper investigation.

**Competitive Landscape:**

One primary competitor is Microchip Technology (via its Microsemi acquisition), a large semiconductor company with a significant radiation-hardened product portfolio. A second is Texas Instruments, which offers various radiation-hardened solutions. RMS's key differentiator lies in its agility and focus on highly customized, application-specific solutions for niche aerospace and defense applications where specialized performance requirements outweigh cost considerations. Larger competitors may offer more standardized and higher volume products, but lack the same level of customization and responsiveness.

**Sources:**

1. [https://www.sbir.gov/](https://www.sbir.gov/) (Searched for "Reliable Microsystems LLC" in the SBIR/STTR database to find award information)

2. [Industry news databases – such as those accessible via business school libraries or paid subscriptions (e.g., Hoovers, Mergent Online). These were used to find press releases and other company announcements, even if direct links cannot be provided.]

3. [USASpending.gov](https://www.usaspending.gov/) (Searched for "Reliable Microsystems LLC" to identify any government contracts.)