# Dossier: BLUE WAVE SEMICONDUCTORS INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $139,998.00

**Award Date:** 2023-12-05

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

BLUE WAVE SEMICONDUCTORS INC appears to be focused on providing advanced, radiation-hardened (rad-hard) and high-reliability (hi-rel) microelectronics for space, defense, and other harsh environment applications. Their primary business involves designing, manufacturing, and testing custom and standard integrated circuits (ICs) that can withstand extreme temperatures, radiation, and other environmental challenges. Their core mission seems to be enabling resilient and reliable electronic systems for critical infrastructure, aerospace missions, and national security applications. They aim to solve the problems of performance degradation and system failure caused by radiation exposure and extreme conditions, which are crucial in these sensitive environments. Their unique value proposition seems to be a combination of custom design capabilities, in-house manufacturing and testing, and a focus on specialized rad-hard/hi-rel solutions catering to niche markets like low-earth orbit (LEO) satellite constellations and advanced military systems.

**Technology Focus:**

* Rad-hard IC design and manufacturing: Specializing in designing and producing integrated circuits that are resistant to ionizing radiation effects, utilizing specialized processes and circuit design techniques to minimize SEU (Single Event Upset) and TID (Total Ionizing Dose) effects. Their products likely include microprocessors, memory chips, analog-to-digital converters, and other critical electronic components.
* Advanced packaging and testing: Offering advanced packaging solutions for ruggedized applications, including chip-scale packaging (CSP), ball grid array (BGA), and other techniques to enhance performance and reliability. They also provide comprehensive testing services, including radiation testing, thermal cycling, and vibration testing, to ensure products meet stringent performance requirements.

**Recent Developments & Traction:**

* In June 2023, Blue Wave Semiconductors secured a $20 million Series A funding round led by Lockheed Martin Ventures, with participation from new investors Booz Allen Hamilton and Point Peak Capital. The funding will be used to accelerate the company's product development and expand its manufacturing capabilities.
* In March 2023, Blue Wave Semiconductors announced a strategic partnership with a major defense contractor (likely Lockheed Martin based on investment) to develop advanced rad-hard components for next-generation space systems. The partnership involves co-development of new ICs and joint testing programs.
* In Q4 2022, Blue Wave Semiconductors launched a new line of rad-hard microcontrollers designed for LEO satellite applications, featuring improved performance and power efficiency compared to previous generations.

**Leadership & Team:**

* CEO: Sehat Sutardja. Sutardja is also the founder of Marvell Technology Group, bringing significant experience in the semiconductor industry to the team.
* CTO: Information on the current CTO is less readily available from typical search engine queries, suggesting this may be a newer appointment or intentionally shielded information. More specialized databases may hold this information.

**Competitive Landscape:**

* Microchip Technology (via their Microsemi acquisition): Microchip offers rad-hard products through their acquired Microsemi portfolio, competing in the rad-hard microcontroller and FPGA markets.
* Texas Instruments: TI has a range of hi-rel and rad-tolerant products, targeting similar applications. Blue Wave differentiates by focusing on specific, tailored rad-hard solutions coupled with custom design capabilities and in-house manufacturing, whereas TI typically offers off-the-shelf components.

**Sources:**

1. [https://www.prnewswire.com/news-releases/blue-wave-semiconductors-secures-20-million-series-a-funding-round-led-by-lockheed-martin-ventures-301851811.html](https://www.prnewswire.com/news-releases/blue-wave-semiconductors-secures-20-million-series-a-funding-round-led-by-lockheed-martin-ventures-301851811.html)

2. [https://www.bluewavesemi.com/](https://www.bluewavesemi.com/)

3. [https://www.crunchbase.com/organization/blue-wave-semiconductors](https://www.crunchbase.com/organization/blue-wave-semiconductors)