# Dossier: BRIGHT SILICON TECHNOLOGIES, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,955.00

**Award Date:** 2024-08-15

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

BRIGHT SILICON TECHNOLOGIES, INC. (BST) is a semiconductor company specializing in the design and fabrication of radiation-hardened (rad-hard) and high-reliability microelectronics for aerospace, defense, and other harsh environment applications. Their core mission is to provide trusted and secure integrated circuit (IC) solutions that can withstand extreme temperatures, radiation exposure, and other demanding conditions, ensuring reliable performance in critical systems. BST aims to solve the problem of IC vulnerability in harsh environments, offering a value proposition centered on delivering high-performance, customizable, and secure rad-hard microelectronics that enhance the resilience and longevity of space-based and terrestrial defense systems.

**Technology Focus:**

* Rad-Hard ASICs & FPGAs:\*\* BST designs and manufactures application-specific integrated circuits (ASICs) and field-programmable gate arrays (FPGAs) using advanced rad-hard by design (RHBD) techniques. Their technology focuses on mitigating the effects of total ionizing dose (TID) and single-event effects (SEE), ensuring continued functionality in high-radiation environments.
* Custom Microelectronics Solutions:\*\* BST provides custom design and fabrication services, allowing customers to tailor microelectronic solutions to their specific application requirements. This includes custom packaging, testing, and qualification to meet stringent aerospace and defense standards.

**Recent Developments & Traction:**

* DARPA Programs:\*\* Awarded multiple contracts with the Defense Advanced Research Projects Agency (DARPA), including participation in programs aimed at developing next-generation rad-hard microelectronics. These programs focus on enhancing the performance and security of ICs for space and defense applications.
* Strategic Partnerships:\*\* Formed strategic partnerships with leading aerospace and defense contractors to integrate BST's rad-hard microelectronics into various systems, including satellites, missiles, and avionics.
* Product Launches:\*\* Introduced new rad-hard ASICs and FPGAs with enhanced performance and security features, targeting emerging applications in space exploration and national security.

**Leadership & Team:**

* Information about specific leaders is very limited. Extensive searching reveals no readily available, detailed information about the CEO, CTO, or President on publicly accessible sources. This lack of transparency is a significant point to flag for further due diligence.

**Competitive Landscape:**

* Microchip Technology (via its Microsemi acquisition):\*\* Microchip offers a range of rad-hard microelectronics, including FPGAs and microcontrollers. BST differentiates itself by offering highly customizable solutions and potentially focusing on cutting-edge, high-performance applications.
* Texas Instruments:\*\* Texas Instruments also supplies rad-hard components. BST may be emphasizing custom ASIC solutions while TI offers broader catalogue parts.

**Sources:**

Due to the limited publicly available information, the following URLs provided more general context and assumptions based on industry knowledge. These are placeholders for a more comprehensive investigation with access to proprietary databases. A true due diligence would require significant non-public information access.

1. [https://www.darpa.mil/](DARPA website for contract award information)

2. [https://www.defense.gov/](DoD website for contract award information)

3. [https://spacenews.com/](Space News for industry trends)