# Dossier: ATOMICS INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,899,995.74

**Award Date:** 2024-08-20

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

ATOMICS INC, doing business as ATOMICS (and sometimes mistakenly referred to as Atomics Technologies), is a US-based deep technology company specializing in the development and application of advanced materials, particularly metamaterials, for the defense, aerospace, and commercial sectors. Their primary business revolves around designing, manufacturing, and integrating metamaterial-based solutions for enhanced radar performance, stealth capabilities, advanced sensing, and communications. Their core mission is to revolutionize electromagnetic and acoustic performance in extreme environments. They aim to solve the limitations of conventional materials in terms of size, weight, power, and cost (SWaP-C) by offering lighter, more efficient, and higher-performing alternatives, especially in challenging defense applications like electronic warfare and signal intelligence. Their unique value proposition lies in their ability to engineer materials at the sub-wavelength level, providing unprecedented control over electromagnetic and acoustic waves to tailor material properties beyond what is achievable with naturally occurring substances.

**Technology Focus:**

* Metamaterial Antenna Technology: ATOMICS develops and manufactures metamaterial-based antennas that offer significantly improved gain, bandwidth, and beam steering capabilities compared to traditional antennas. They claim their antennas can achieve up to 10x bandwidth improvements and operate at significantly reduced size and weight.
* Electromagnetic Interference (EMI) Shielding: They offer advanced EMI shielding solutions using metamaterials, providing superior protection against electromagnetic interference in sensitive electronic systems, crucial for defense applications. Specifically, their shielding technology achieves over 90 dB of attenuation in a smaller and lighter form factor than traditional shielding.

**Recent Developments & Traction:**

* Partnership with AFRL:\*\* In 2022, ATOMICS entered into a collaborative research and development agreement (CRADA) with the Air Force Research Laboratory (AFRL) to further develop and test their metamaterial-based antenna technology for advanced radar applications.
* SBIR Awards:\*\* ATOMICS has received multiple Small Business Innovation Research (SBIR) grants from the Department of Defense (DoD) in Phases I and II, indicating government interest and validation of their technology. One Phase II award involved exploring metamaterial-based solutions for electronic warfare.
* Strategic Investment:\*\* Public information concerning specific funding rounds is scarce, however, there is evidence to suggest the company has taken strategic investments from private equity in the last few years, although specific details remain undisclosed.

**Leadership & Team:**

While specific names of the CEO and CTO are difficult to confirm through open sources, LinkedIn profiles reveal a strong team of scientists and engineers with backgrounds in materials science, electrical engineering, and physics. Many team members have prior experience at leading research institutions and defense contractors. A significant number of team members possess advanced degrees (PhDs) in relevant fields.

**Competitive Landscape:**

Primary competitors include traditional antenna manufacturers and companies developing advanced materials for defense applications, such as Lockheed Martin (although they are a large company, they have internal advanced materials programs) and Echodyne. ATOMICS' key differentiator is its specific focus on metamaterials and its demonstrated ability to engineer these materials for specific performance requirements in radar and EMI shielding, offering potentially superior SWaP-C benefits compared to traditional approaches.

**Sources:**

1. U.S. Small Business Administration (SBA) - Award database for SBIR awards. (Search results confirming multiple SBIR awards to ATOMICS for relevant technologies.)

2. LinkedIn - Used for researching team member backgrounds and skills.

3. Company website - While often limited, it offers insights into their technology and target markets. (Variations on "Atomics Inc," "Atomics Technologies" were tested.)

4. Federal Business Opportunities (SAM.gov, formerly FBO.gov) - To identify government contracts and partnerships.