# Dossier: ATOMBEAM TECHNOLOGIES INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,839.00

**Award Date:** 2024-05-16

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

AtomBeam Technologies Inc. focuses on developing and deploying ultra-high compression technology for data transmission in bandwidth-constrained and contested environments, specifically catering to the defense, aerospace, and IoT sectors. Their core mission is to enable secure, reliable, and efficient data transfer from edge devices to centralized systems, even in situations where network availability is limited or intermittent. They aim to solve the problem of data congestion and vulnerability by significantly reducing data size before transmission, thereby minimizing the risk of interception and maximizing the amount of information that can be transmitted over existing infrastructure. Their unique value proposition lies in their patented "ShrinkRay" technology, which claims to compress data by up to 75% while retaining full accuracy, making it ideal for applications like drone surveillance, battlefield communications, satellite imagery, and remote sensing.

**Technology Focus:**

* AtomBeam's core technology, "ShrinkRay," uses a proprietary AI-powered algorithm to achieve lossless compression. This is specifically optimized for sensor data, images, and video feeds.
* Their technology is software-defined and hardware-agnostic, enabling integration into existing systems and devices. They claim up to a 75% reduction in data size before transmission without compromising accuracy, resulting in significantly lower bandwidth consumption and faster transmission speeds.

**Recent Developments & Traction:**

* June 2023:\*\* Announced a partnership with AI machine vision innovator alwaysAI to enable on-device compression for edge AI applications.
* July 2022:\*\* Awarded a Phase II Small Business Innovation Research (SBIR) contract from the U.S. Air Force to develop a low-latency, high-compression data transmission capability for airborne intelligence, surveillance, and reconnaissance (ISR) systems.
* April 2021:\*\* Completed a seed funding round, raising an undisclosed amount. (Specific details beyond "seed" are not readily available in public sources).

**Leadership & Team:**

* Charles Yeomans (CEO):\*\* Experienced entrepreneur with a background in telecommunications and software development. He previously held leadership roles at several technology companies.
* (Publicly accessible information on the rest of the executive team is limited)\*

**Competitive Landscape:**

* LizardTech (now part of Extensis):\*\* While not directly comparable as they specialize in geospatial image compression, LizardTech offers compression solutions that compete in specific markets, such as satellite imagery and aerial photography. AtomBeam differentiates itself by focusing specifically on AI-powered compression tailored for bandwidth-constrained environments and edge applications.
* Various lossless compression algorithm providers (e.g., those using Lempel-Ziv algorithms):\*\* AtomBeam's key differentiator is its claimed significantly higher compression ratios and lower latency compared to traditional lossless compression methods, particularly when applied to sensor data and video.

**Sources:**

1. [https://www.atombeamtech.com/](https://www.atombeamtech.com/)

2. [https://www.businesswire.com/news/home/20230620795095/en/alwaysAI-and-AtomBeam-Partner-to-Enable-on-Device-Compression-for-Edge-AI](https://www.businesswire.com/news/home/20230620795095/en/alwaysAI-and-AtomBeam-Partner-to-Enable-on-Device-Compression-for-Edge-AI)

3. [https://www.af.mil/About-Us/Fact-Sheets/Display/Article/2320024/small-business-innovation-research-sbir-and-small-business-technology-transfer/](https://www.af.mil/About-Us/Fact-Sheets/Display/Article/2320024/small-business-innovation-research-sbir-and-small-business-technology-transfer/) (Search for "AtomBeam" to find their SBIR award.)