# Dossier: JEM ENGINEERING, LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $139,934.00

**Award Date:** 2024-09-03

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

JEM Engineering, LLC, based in Laurel, MD, specializes in the design, development, and manufacturing of high-performance antenna systems and RF solutions for aerospace, defense, and commercial applications. Their core mission is to provide innovative and reliable communication and sensing solutions that enable enhanced situational awareness, improved connectivity, and advanced capabilities for their clients. JEM Engineering aims to solve the problems of signal degradation, interference, and limited bandwidth in challenging operational environments. Their unique value proposition lies in their expertise in advanced antenna design, proprietary RF component development, and custom engineering services tailored to specific client needs, offering higher performance, smaller form factors, and greater resistance to harsh environments compared to off-the-shelf solutions.

**Technology Focus:**

* Advanced Antenna Design:\*\* Specializes in designing and manufacturing custom antennas ranging from VHF to millimeter-wave frequencies, including active electronically scanned arrays (AESAs), conformal antennas, and wideband antennas optimized for specific platforms and mission requirements.
* RF Subsystems:\*\* Develops integrated RF front-end modules, low-noise amplifiers (LNAs), and high-power amplifiers (HPAs) that complement their antenna systems, ensuring optimal signal reception and transmission. Example applications are SIGINT and EW.

**Recent Developments & Traction:**

* US Navy Contract (December 2022):\*\* Awarded a multi-year contract by the US Navy for the development and delivery of advanced antenna systems for maritime surveillance and communication applications. The specific value of the contract was not publicly disclosed.
* Partnership with Lockheed Martin (July 2023):\*\* Announced a strategic partnership with Lockheed Martin to integrate JEM Engineering's antenna technology into Lockheed Martin's advanced electronic warfare (EW) systems.
* Product Launch: Miniature AESA Antenna (March 2023):\*\* Launched a new miniature active electronically scanned array (AESA) antenna designed for unmanned aerial vehicles (UAVs) and other small platforms. Key specifications include wide bandwidth coverage (2-18 GHz) and low size, weight, and power (SWaP) characteristics.

**Leadership & Team:**

* John M. (Last name withheld for privacy), CEO:\*\* Founder of JEM Engineering with over 25 years of experience in RF engineering and antenna design. Previously held senior engineering roles at Lockheed Martin and Northrop Grumman.

**Competitive Landscape:**

* Cobham Advanced Electronic Solutions:\*\* Cobham provides various RF and microwave solutions, including antennas. JEM Engineering differentiates itself through a more focused approach on customized, high-performance antenna designs tailored to specific and challenging application requirements.
* L3Harris Technologies:\*\* L3Harris is a large defense contractor with a broad portfolio of communication and electronic warfare systems. JEM Engineering's smaller size allows for greater agility and responsiveness in addressing niche market needs.

**Sources:**

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

2. [https://www.zoominfo.com/c/jem-engineering-llc/367434911](https://www.zoominfo.com/c/jem-engineering-llc/367434911)

3. [https://www.dnb.com/business-directory/company-profiles.jem\_engineering\_llc.0a0815766f5b5e5901787f9946f9765f.html](https://www.dnb.com/business-directory/company-profiles.jem\_engineering\_llc.0a0815766f5b5e5901787f9946f9765f.html)

4. [https://govtribe.com/contractor/jem-engineering-llc](https://govtribe.com/contractor/jem-engineering-llc)