# Dossier: EXQUADRUM INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $146,427.32

**Award Date:** 2024-07-11

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

EXQUADRUM INC is a specialized engineering and technology company focused on developing and providing innovative solutions for complex aerospace and defense challenges, particularly in the areas of propulsion, energetics, and extreme environment testing. Their core mission centers on enabling safe, reliable, and high-performance access to space and defense systems by developing and integrating advanced technologies. They aim to solve problems related to high-energy propulsion, insensitive munitions, and extreme environment survivability that limit the capabilities of current aerospace and defense platforms. Their unique value proposition resides in their expertise in combining theoretical modeling, rigorous experimentation, and practical engineering to deliver tailored solutions for demanding applications, often exceeding the capabilities of existing commercial technologies.

**Technology Focus:**

* Rocket Engine Development & Testing:\*\* Specializes in the design, development, and testing of advanced rocket engine technologies, including high-performance liquid rocket engines, solid rocket motors, and hybrid propulsion systems. This includes both theoretical modeling and practical implementation, with access to extensive testing facilities.
* Energetics & Insensitive Munitions:\*\* Develops and tests energetic materials and insensitive munitions (IM) solutions. This work aims to increase the safety and reliability of munitions while maintaining or improving their performance. Includes research and development into new energetic formulations and advanced IM design.
* Extreme Environment Testing:\*\* Offers specialized testing services for components and systems exposed to extreme environments, such as high temperatures, pressures, and radiation, crucial for verifying the durability and performance of aerospace and defense systems.

**Recent Developments & Traction:**

* Contract Awarded by U.S. Air Force Research Laboratory (AFRL) (September 2021):\*\* Received a significant contract from AFRL to develop and test advanced propulsion technologies. This validates their technical expertise and strengthens their position as a key supplier to the U.S. Department of Defense. (Details on specific technologies and contract value may require deeper access)
* Ongoing work with NASA on Spacecraft Propulsion:\*\* Public information reveals that EXQUADRUM is actively involved in projects related to next-generation spacecraft propulsion systems with NASA, though specific details of these partnerships remain proprietary.
* Continued Emphasis on Energetic Material Development:\*\* Publications and presentations indicate continued development in energetic materials for various aerospace and defense applications with an emphasis on safety and performance.

**Leadership & Team:**

Information available is limited. Public sources generally highlight the technical expertise of the Exquadrum team in areas such as propulsion, energetic materials, and aerospace engineering. Further information regarding specific leadership roles and individual biographies requires access to proprietary databases or direct company communication.

**Competitive Landscape:**

* Aerojet Rocketdyne:\*\* A major player in rocket engine development and manufacturing. Exquadrum differentiates itself through its specialized focus on niche applications requiring highly customized solutions and its rapid prototyping capabilities.
* Northrop Grumman:\*\* Involved in various aerospace and defense segments, including propulsion systems and energetics. Exquadrum's differentiator lies in its agility and ability to address specific, highly complex challenges that may not be the primary focus of larger, more diversified companies.

**Sources:**

1. [www.exquadrum.com](https://www.exquadrum.com) - Official company website (primary source for company overview and technology focus).

2. [SAM.gov](https://sam.gov/content/home) - Government contract database (useful for verifying government contracts and business size).

3. Defense Industry Daily Archives (search term: Exquadrum) - Provides summarized reports of contracts awarded to Exquadrum by the Department of Defense (supports recent developments & traction).