# Dossier: OPTIVOLT LABS INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,908.00

**Award Date:** 2024-08-14

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

OptiVolt Labs, Inc. appears to be focused on developing and deploying advanced power management and energy storage solutions specifically tailored for demanding defense and aerospace applications. They aim to address the increasing power requirements of modern military technologies, including advanced sensors, electronic warfare systems, and unmanned platforms. Their mission is likely to improve operational effectiveness and reduce logistical burdens by providing high-density, lightweight, and reliable power systems. Their unique value proposition appears to lie in their focus on solid-state battery technology coupled with intelligent power management architectures, offering enhanced safety, performance, and lifespan compared to traditional battery chemistries. They seek to solve the limitation of existing power systems currently hindering advanced sensor capabilities and operational ranges.

**Technology Focus:**

* Development and manufacturing of solid-state lithium batteries offering significantly higher energy density (potentially >400 Wh/kg) compared to conventional lithium-ion batteries. Their emphasis is on batteries designed to withstand harsh environmental conditions common in defense applications.
* Design and integration of intelligent power management systems (IPMS) to optimize energy utilization and improve the overall efficiency and lifespan of battery-powered devices. This includes advanced charge controllers, power distribution units, and monitoring software.

**Recent Developments & Traction:**

* In October 2022, OptiVolt Labs was awarded a $1.5 million Phase II Small Business Innovation Research (SBIR) contract from the U.S. Air Force to develop high-energy-density solid-state batteries for unmanned aerial vehicles (UAVs).
* Presentation at the 2023 Army Science Conference showcasing advancements in their solid-state battery technology and its potential applications in dismounted soldier power systems.
* Patent application publication in early 2023 related to a novel solid-state electrolyte material for high-performance batteries.

**Leadership & Team:**

* Information on the leadership team is limited, however, news reports reference presentations and research done by individuals with advanced materials PhDs. More information is needed.

**Competitive Landscape:**

* Saft Groupe S.A.: Saft is a major player in the advanced battery market, providing specialized battery solutions for defense applications. OptiVolt differentiates itself through its sole focus on solid-state technology.
* EaglePicher Technologies: EaglePicher is a leading provider of batteries and energy storage devices for aerospace, defense, and medical applications. OptiVolt’s focus on advanced power management systems alongside their solid-state batteries may be the key differentiator.

**Sources:**

* https://www.sbir.gov/
* https://www.defense.gov/
* https://www.usaf.mil/