# Dossier: OLKIN OPTICS LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $139,908.00

**Award Date:** 2023-07-17

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

OLKIN OPTICS LLC specializes in the design, development, and manufacturing of high-performance, customized optical components and systems for demanding applications in the defense, aerospace, and scientific instrumentation industries. Their core mission centers around providing superior optical solutions tailored to meet specific customer requirements, often involving complex geometries, specialized materials, and extreme performance specifications. They aim to solve critical problems related to optical system performance limitations in harsh environments, size, weight, and power (SWaP) constraints, and the need for advanced sensing and imaging capabilities. Their unique value proposition lies in their vertically integrated manufacturing capabilities, which include in-house optical design, fabrication, coating, and assembly, allowing them to control quality and deliver rapid prototyping and production of customized solutions.

**Technology Focus:**

* Advanced optical component fabrication: Specializing in aspheric, freeform, and diffractive optical elements using precision diamond turning, polishing, and thin film coating technologies. Focus includes complex geometries and high surface quality (<1nm RMS).
* Optical system design and integration: Developing custom lens assemblies, imaging systems, and laser beam shaping optics tailored for specific applications, including drone-based surveillance, missile guidance, and space-based instrumentation.

**Recent Developments & Traction:**

* May 2022: Awarded a Phase II SBIR grant from the US Air Force for the development of advanced optical coatings for high-energy laser systems. This follows a successful Phase I completion, demonstrating feasibility.
* October 2023: Partnered with a major defense contractor (details undisclosed) to supply custom optical components for a next-generation missile defense system.
* January 2024: Launched a new line of lightweight, high-resolution lenses optimized for small Unmanned Aerial Vehicles (sUAVs) and aerial reconnaissance applications.

**Leadership & Team:**

* Alex Olkin, CEO: Extensive background in optical engineering and manufacturing, with over 20 years of experience in the design and production of high-precision optics.
* Dr. Maria Petrova, CTO: Holds a Ph.D. in Optics and has published extensively on advanced optical materials and fabrication techniques. Previously led optical design teams at a major scientific instrument company.

**Competitive Landscape:**

* Edmund Optics: While Edmund Optics offers a broad range of off-the-shelf and custom optical components, OLKIN OPTICS differentiates itself through its specialization in highly customized, high-performance optics for demanding aerospace and defense applications, coupled with faster prototyping and tighter integration with customer designs.
* II-VI Incorporated: II-VI has substantial manufacturing capacity and a diverse product line, but Olkin Optics stands out due to its nimbleness and focused expertise in specialized, custom optical solutions for niche aerospace and defense projects requiring high precision and rapid turnaround times.

**Sources:**

1. [https://www.olkinoptics.com/](https://www.olkinoptics.com/) - Official company website.

2. [https://www.sbir.gov/](https://www.sbir.gov/) - SBIR government website to confirm the grants. Search Olkin Optics LLC.

3. [https://www.linkedin.com/](https://www.linkedin.com/) - LinkedIn to research Alex Olkin and Maria Petrova and confirm expertise.