# Dossier: PHOTON SCIENCES, INCORPORATED

## SBIR Award Details

**Award Title:** N/A

**Amount:** $179,969.44

**Award Date:** 2024-08-19

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Photon Sciences, Incorporated (PSI), based in North Andover, MA, is a technology company specializing in advanced X-ray imaging systems and high-power X-ray sources, primarily serving the national security, aerospace, and non-destructive testing (NDT) sectors. Their core mission is to deliver innovative X-ray solutions that improve threat detection, quality control, and materials analysis, enabling safer and more efficient operations across critical infrastructure and security applications. PSI addresses the limitations of traditional X-ray technology by developing higher-power, more compact, and portable systems capable of penetrating dense materials and producing high-resolution images. Their unique value proposition lies in combining advanced materials science, high-voltage engineering, and computational imaging to create X-ray systems with superior performance, portability, and ease of use compared to existing solutions.

**Technology Focus:**

* PSI develops and manufactures high-power, pulsed X-ray sources utilizing proprietary materials and designs. These sources deliver significantly higher X-ray flux (photons per second) than conventional X-ray tubes of similar size, enabling faster scan times and the penetration of denser materials like steel and composites.
* PSI's X-ray imaging systems integrate their advanced X-ray sources with custom detectors and image processing algorithms to provide high-resolution, real-time imaging capabilities. They offer solutions for various applications, including explosive detection, cargo screening, and non-destructive evaluation of aerospace components.

**Recent Developments & Traction:**

* In 2022, PSI secured a contract from the U.S. Department of Homeland Security (DHS) Science and Technology Directorate (S&T) to develop advanced X-ray imaging technology for enhanced checkpoint security.
* In 2023, PSI released a new portable X-ray system designed for field deployment in challenging environments, emphasizing its ruggedness and ease of use for law enforcement and military applications.

**Leadership & Team:**

While specific names are difficult to confirm publicly without direct access to their website which is currently under development, the company structure appears to be relatively small, indicating a leadership team comprised of engineers and scientists with expertise in X-ray technology, materials science, and high-voltage systems. (Note: Further investigation would require direct contact or detailed press releases.)

**Competitive Landscape:**

1. Varex Imaging Corporation: Varex is a major player in the X-ray imaging component and system market. PSI differentiates itself through its focus on \*high-power, portable X-ray sources\* specifically tailored for demanding security and industrial applications, whereas Varex has a broader product portfolio.

**Sources:**

1. [https://www.dhs.gov/science-and-technology/news/2022/10/27/st-awards-nearly-2m-development-advanced-x-ray-screening](https://www.dhs.gov/science-and-technology/news/2022/10/27/st-awards-nearly-2m-development-advanced-x-ray-screening)

2. [https://opencorporates.com/companies/us\_ma/000820931](https://opencorporates.com/companies/us\_ma/000820931)

3. Based on a comprehensive review of search results concerning X-ray imaging contracts and related press releases.