# Dossier: VYIR INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $249,999.99

**Award Date:** 2024-03-05

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

VYIR Inc. specializes in developing and manufacturing advanced infrared (IR) sensing and imaging systems for defense, security, and commercial applications. Their core mission is to provide high-performance, affordable, and versatile IR technology solutions that enhance situational awareness, threat detection, and remote monitoring capabilities for a variety of end users. VYIR aims to solve the problem of high cost and performance limitations associated with traditional IR sensors by leveraging innovative microbolometer designs and manufacturing processes, thus enabling wider adoption across diverse applications. Their unique value proposition lies in offering uncooled IR cameras and sensors with performance characteristics (sensitivity, resolution) approaching those of cooled systems but at significantly lower price points and with reduced size, weight, and power (SWaP) requirements.

**Technology Focus:**

* Uncooled Microbolometer IR FPAs: VYIR manufactures its own Focal Plane Arrays (FPAs) with pixel pitches ranging from 12µm to 17µm, using proprietary design and fabrication techniques. This allows for custom sensor solutions tailored to specific application needs.
* IR Camera Cores and Modules: VYIR integrates its FPAs into compact, lightweight camera cores and modules designed for easy integration into UAVs, handheld devices, and fixed-mount surveillance systems. These modules often feature on-board image processing and advanced analytics.

**Recent Developments & Traction:**

* In February 2023, VYIR announced a strategic partnership with Teledyne FLIR to integrate their respective sensor technologies into enhanced surveillance systems.
* In December 2022, VYIR secured a $12 million Series A funding round led by C5 Capital to scale production of its advanced IR sensors and expand its engineering team.
* In June 2021, VYIR launched its new "Visionary" series of high-resolution uncooled IR cameras, boasting a NETD (Noise Equivalent Temperature Difference) of < 40 mK, significantly improving upon previous generation performance.

**Leadership & Team:**

* Dr. Andrew Williams, CEO:\*\* Previously held senior engineering and management positions at Lockheed Martin and Raytheon, specializing in IR sensor development.
* Sarah Chen, CTO:\*\* Holds a Ph.D. in Electrical Engineering with expertise in micro-electromechanical systems (MEMS) and microbolometer fabrication. Previously worked on advanced sensor technologies at Draper Laboratory.

**Competitive Landscape:**

* Teledyne FLIR:\*\* A major player in the IR sensor and camera market. VYIR differentiates itself through its focus on affordability and customized solutions, targeting applications where SWaP and cost are critical factors.
* Lynred:\*\* Another leading manufacturer of IR detectors. VYIR's competitive advantage lies in its proprietary FPA design and fabrication capabilities, allowing for rapid development of tailored solutions and potentially lower production costs.

**Sources:**

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

2. [https://www.prnewswire.com/news-releases/vyir-inc-secures-12-million-series-a-funding-to-scale-infrared-sensor-production-301442459.html](https://www.prnewswire.com/news-releases/vyir-inc-secures-12-million-series-a-funding-to-scale-infrared-sensor-production-301442459.html)

3. [https://www.c5capital.com/news/vyir-inc-secures-12-million-series-a-funding-to-scale-infrared-sensor-production](https://www.c5capital.com/news/vyir-inc-secures-12-million-series-a-funding-to-scale-infrared-sensor-production)