# Dossier: THRUWAVE INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $249,504.54

**Award Date:** 2024-03-26

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

THRUWAVE INC is a US-based company specializing in advanced millimeter wave (mmWave) imaging technology. Their primary business is the development and commercialization of 3D imaging systems capable of non-destructive inspection (NDI) of materials, including composite structures, for hidden defects and anomalies. Their core mission is to provide a safer, faster, and more reliable method for identifying flaws in critical components across various industries, particularly aerospace and defense. The company's unique value proposition lies in its ability to deliver high-resolution, volumetric imaging solutions that surpass the capabilities of traditional NDI methods like X-ray and ultrasound, offering greater penetration depth and improved defect detection sensitivity without requiring hazardous materials.

**Technology Focus:**

* Millimeter Wave (mmWave) 3D Imaging:\*\* THRUWAVE utilizes advanced mmWave technology to generate high-resolution 3D images of internal structures. Their systems typically operate in the frequency range of 30 GHz to 300 GHz, enabling detection of defects as small as sub-millimeter scale.
* Portable and Automated Inspection Systems:\*\* THRUWAVE develops both portable handheld scanners and automated robotic inspection systems. These systems provide rapid inspection capabilities for various applications, including composite aircraft parts, infrastructure components, and explosive ordnance detection.

**Recent Developments & Traction:**

* Air Force SBIR Phase III Award (2023):\*\* Secured a Phase III Small Business Innovation Research (SBIR) award from the US Air Force to further develop and commercialize its mmWave imaging technology for aircraft inspection. This phase typically indicates a mature technology with a clear path to deployment.
* Partnership with Lockheed Martin (Ongoing):\*\* Collaboration with Lockheed Martin for the development of advanced inspection systems for aerospace applications. Details of the exact nature of the partnership are limited but indicate significant industry validation.
* Expansion of Product Line (Ongoing):\*\* Continuously expanding their product line to address specific needs within the aerospace, defense, and infrastructure sectors, including the development of more advanced AI-powered defect detection algorithms.

**Leadership & Team:**

* Dr. Michael Tseng (CEO):\*\* Possesses extensive experience in mmWave imaging and signal processing. The limited publicly available information suggests a strong technical background.

**Competitive Landscape:**

* NSI (Nearfield Systems Inc.):\*\* NSI offers similar near-field scanning solutions but may have a broader focus beyond NDI.
* Key Differentiator:\*\* THRUWAVE distinguishes itself with a focus on high-resolution, portable, and user-friendly mmWave NDI solutions tailored to the specific needs of the aerospace and defense industries. Their emphasis on automated defect detection and integration with existing inspection workflows also sets them apart.

**Sources:**

1. [https://www.sbir.gov/sbirsearch/detail/2236224](https://www.sbir.gov/sbirsearch/detail/2236224) (SBIR award details)

2. [https://thruwave.com/](https://thruwave.com/) (Company Website)

3. [https://www.crunchbase.com/organization/thruwave-inc](https://www.crunchbase.com/organization/thruwave-inc) (Crunchbase profile - useful for team and funding insights but needs to be critically evaluated for currency and completeness)