# Dossier: MOSAIC MICROSYSTEMS LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,182.00

**Award Date:** 2023-05-31

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Mosaic Microsystems LLC is a materials technology company focused on developing and manufacturing Through Glass Via (TGV) interposers and hermetic glass packages. Their primary business is providing high-performance, cost-effective solutions for advanced microelectronics packaging, addressing the growing need for smaller, faster, and more reliable electronic devices in demanding environments. Their core mission revolves around revolutionizing microelectronics packaging through the utilization of thin glass substrates, enabling higher density interconnects, improved thermal management, and enhanced signal integrity. Their unique value proposition lies in their expertise in glass processing and their ability to tailor glass materials to meet specific application requirements, resulting in smaller, lighter, and more efficient electronic systems, particularly crucial for defense, aerospace, and telecom applications.

**Technology Focus:**

* Through Glass Via (TGV) Interposers:\*\* Offers high-density vertical interconnects through thin glass substrates, enabling finer pitch and improved signal integrity compared to traditional silicon interposers. Achieves via pitch down to 25µm.
* Hermetic Glass Packages:\*\* Provides robust and reliable hermetic sealing for sensitive electronic components, protecting them from harsh environments. Packages can be custom designed and fabricated to meet specific customer requirements, offering superior performance compared to standard ceramic or plastic packages.

**Recent Developments & Traction:**

* U.S. Air Force Contract (2023):\*\* Awarded a contract by the U.S. Air Force to develop advanced packaging solutions for high-performance computing applications, indicating strong validation of their technology within the defense sector.
* Series A Funding (Undisclosed Amount):\*\* Completed a Series A funding round to scale up production capacity and expand their product offerings, further demonstrating market confidence in their potential. Exact date and lead investors were not publicly disclosed through the open web search.
* Partnership with SUNY Polytechnic Institute:\*\* Entered into a strategic partnership with SUNY Polytechnic Institute to accelerate research and development efforts in advanced microelectronics packaging, showcasing their commitment to innovation.

**Leadership & Team:**

* Shelley Peterson (CEO):\*\* Possesses extensive experience in the microelectronics industry, previously holding leadership positions at successful technology companies. Has demonstrated expertise in bringing innovative materials and packaging solutions to market.
* (Information on other leadership was not publicly available within the scope of the web search).\*\*

**Competitive Landscape:**

* Amkor Technology:\*\* A major player in the advanced packaging market. Mosaic Microsystems differentiates itself through its exclusive focus on glass-based solutions, which offer unique advantages in terms of signal integrity, thermal management, and hermeticity.
* ASE Group:\*\* Another prominent advanced packaging company. Mosaic Microsystems stands out through its specialized expertise in thin glass processing and its ability to customize glass materials for specific applications, giving them a competitive edge in niche markets.

**Sources:**

1. [https://mosaicmicro.com/](https://mosaicmicro.com/)

2. [https://www.bizjournals.com/albany/news/2023/08/08/mosaic-microsystems-air-force-contract-utica-ny.html](https://www.bizjournals.com/albany/news/2023/08/08/mosaic-microsystems-air-force-contract-utica-ny.html)

3. [https://sunypoly.edu/news/suny-poly-and-mosaic-microsystems-announce-strategic-partnership-accelerate-innovations-micro.html](https://sunypoly.edu/news/suny-poly-and-mosaic-microsystems-announce-strategic-partnership-accelerate-innovations-micro.html)