# Dossier: ACELLENT TECHNOLOGIES INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $139,998.00

**Award Date:** 2023-11-15

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Acellent Technologies Inc. specializes in Structural Health Monitoring (SHM) systems, with a core mission to enhance safety, reduce maintenance costs, and improve the performance of critical infrastructure and aerospace components. Acellent's technology focuses on continuous, in-situ monitoring of structures to detect damage at its earliest stages, preventing catastrophic failures and extending asset lifecycles. Their unique value proposition lies in offering a comprehensive, integrated solution that combines advanced sensor technology, data acquisition systems, and sophisticated analytical software, allowing for proactive and predictive maintenance strategies.

**Technology Focus:**

* SMART Layer® Sensors:\*\* Acellent's SMART Layer® sensors are thin, flexible patches embedded with piezoelectric elements. These sensors can detect a wide range of structural anomalies, including cracks, corrosion, and delamination, through the propagation and analysis of guided ultrasonic waves.
* ScanGenie® Software:\*\* A proprietary software platform that analyzes the sensor data acquired by the SMART Layer® sensors. ScanGenie® utilizes advanced algorithms and machine learning to automatically identify and locate damage, providing real-time alerts and generating detailed reports.

**Recent Developments & Traction:**

* USAF Contract:\*\* Awarded a Phase II Small Business Innovation Research (SBIR) contract with the United States Air Force (USAF) in early 2024 to develop enhanced structural health monitoring solutions for advanced composite aircraft structures.
* Partnership with Boeing (Reported):\*\* While publicly available information is scarce, industry reports suggest ongoing collaboration with Boeing on integrating Acellent's SHM technology into various aerospace applications, including aircraft wing structures. Public confirmation is needed.
* Expansion into Infrastructure:\*\* Acellent has expanded its focus to include infrastructure applications, such as bridges and pipelines, demonstrating the versatility of its technology.

**Leadership & Team:**

* Professor Eric Udd:\*\* Founder and Chief Technical Officer (CTO). A leading expert in structural health monitoring with extensive research experience in piezoelectric sensor technology.
* Dr. Shahram Rezvani:\*\* CEO. Demonstrated experience in commercializing advanced technologies.
* Name (Not publicly discoverable) President/COO:\*\* The current President/COO is difficult to pinpoint with confidence from open sources, suggesting a private operating structure.

**Competitive Landscape:**

* Structural Integrity Associates:\*\* Offers a broader range of structural integrity services, including consulting, inspection, and testing, but lacks Acellent's focus on integrated, embedded sensor solutions.
* MISTRAS Group:\*\* Provides non-destructive testing (NDT) and inspection services, competing in the broader SHM market, but Acellent differentiates itself through its SMART Layer® sensor technology and ScanGenie® software.

**Sources:**

* [acellent.com](https://www.acellent.com/)
* [sbir.gov](https://www.sbir.gov/) (Search "Acellent Technologies")
* [Industry Reports/Articles (Abstracts):\*\* Searched but did not find directly linkable sources to the Boeing relationship, only mentions in broader industry research.