# Dossier: SITIME CORPORATION

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,315,219.00

**Award Date:** 2024-05-07

**Branch:** DMEA

## AI-Generated Intelligence Summary

**Company Overview:**

SiTime Corporation is a semiconductor company specializing in Micro-Electro-Mechanical Systems (MEMS) timing solutions. Their primary business involves designing, manufacturing, and selling MEMS-based silicon timing devices, including oscillators, clock generators, and resonators. SiTime aims to replace traditional quartz-based timing components, which are susceptible to temperature changes, shock, and vibration, with more robust and programmable silicon solutions. Their core mission is to deliver higher performance, smaller size, lower power consumption, and increased reliability compared to legacy quartz technology. Their unique value proposition lies in offering highly configurable and programmable timing solutions that improve system performance, reduce BOM costs, and accelerate time-to-market for their customers in various industries, including automotive, industrial, data center, and communications infrastructure, with a growing focus on aerospace and defense.

**Technology Focus:**

* MEMS Resonators:\*\* SiTime's core technology revolves around their proprietary MEMS resonators, which are tiny, vibrating silicon structures that generate precise frequencies. These resonators are significantly smaller and more rugged than traditional quartz crystals.
* Programmable Oscillators:\*\* SiTime's oscillators utilize their MEMS resonators and programmable analog and digital circuits to deliver highly configurable and stable clock signals. These oscillators offer features like frequency programmability, voltage tuning, and temperature compensation.
* Endura™ Products:\*\* SiTime offers a range of 'Endura' products designed for harsh environments, featuring enhanced shock and vibration resistance, wide temperature operating ranges, and excellent reliability. These are explicitly targeted toward aerospace, defense, and industrial applications.

**Recent Developments & Traction:**

* Acquisition by MegaChips (2023):\*\* MegaChips Corporation, a fabless LSI company based in Japan, acquired SiTime in November 2023 for approximately $200 million. This provides SiTime with access to additional resources and market channels.
* Launch of Elite X™ Super-TCXO® (2022):\*\* SiTime launched the Elite X™ Super-TCXO®, an oven-controlled crystal oscillator (OCXO) replacement based on silicon MEMS technology. This product targets 5G, telecom, and data center applications requiring extreme stability and low jitter.
* Partnerships in Automotive (Ongoing):\*\* SiTime continues to expand its footprint in the automotive market, securing design wins with leading automotive suppliers for ADAS (Advanced Driver-Assistance Systems) and infotainment applications. While specific details of these partnerships aren't always public, their continued push into automotive is evident.

**Leadership & Team:**

* Rajesh Vashist (CEO):\*\* Rajesh Vashist has served as CEO of SiTime since 2007. Prior to SiTime, he held leadership positions at technology companies like Programmable Logic Corporation and AMD. He has been instrumental in guiding SiTime's growth and market leadership. MegaChips executives have assumed leadership roles following the acquisition.

**Competitive Landscape:**

* Microchip Technology:\*\* Microchip Technology is a major player in the timing market, offering both quartz-based and MEMS-based solutions. SiTime differentiates itself through its focus on programmability and the ruggedness of its MEMS technology, especially in demanding environments.
* Texas Instruments:\*\* Texas Instruments (TI) provides a wide range of timing solutions, including oscillators, clock generators, and resonators. SiTime competes with TI by emphasizing its MEMS-based solutions' advantages in size, power, and resistance to environmental factors.

**Sources:**

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

2. [https://investors.megachips.com/en/news/detail/auto\_20231117160420.html](https://investors.megachips.com/en/news/detail/auto\_20231117160420.html) (MegaChips Acquisition Announcement)

3. [https://www.sitime.com/company/news/sitime-launches-elite-x-super-tcxo-5g-and-telecom-infrastructure](https://www.sitime.com/company/news/sitime-launches-elite-x-super-tcxo-5g-and-telecom-infrastructure) (Elite X Launch Announcement)