# Dossier: CPS TECHNOLOGIES CORP.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,063,030.00

**Award Date:** 2024-06-15

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

CPS Technologies Corp. (CPS) develops, manufactures, and sells advanced materials solutions to improve the performance and reliability of critical systems in energy, transportation, aerospace, defense, and other industries. Their core mission is to enable customers to overcome performance limitations imposed by conventional materials through their proprietary metal matrix composite (MMC) technology. CPS's unique value proposition lies in its ability to create materials combining the benefits of metals (e.g., high thermal and electrical conductivity, strength) with the desirable properties of ceramics (e.g., lightweight, high stiffness, thermal management capabilities). This allows for the creation of components that are lighter, stronger, and more thermally efficient than those made from traditional materials, addressing critical challenges in weight reduction, heat management, and structural integrity.

**Technology Focus:**

* Metal Matrix Composites (MMCs):\*\* CPS's primary technology involves the creation of MMCs, primarily using aluminum reinforced with ceramic particles like silicon carbide (SiC) or boron carbide (B4C). These MMCs offer superior thermal management capabilities (e.g., up to 3x the thermal conductivity of aluminum) and improved stiffness-to-weight ratio compared to conventional metals.
* HybridTech Armor Panels:\*\* CPS offers advanced armor solutions utilizing their MMC technology. These panels offer enhanced ballistic protection at reduced weight compared to traditional steel armor, suitable for military vehicles and personnel.

**Recent Developments & Traction:**

* January 2023:\*\* Announced a purchase order from a Tier 1 Automotive customer for casting products in support of a global automotive manufacturer's Electric Vehicle programs. The total value of the order is estimated at $1.5 million over a period of 3 years.
* August 2021:\*\* Awarded a $2 million order for silicon carbide (SiC) power module baseplates used in high-power inverters for rail transportation.
* April 2021:\*\* CPS Technologies Corp. announced the acquisition of substantially all of the assets of HybridTech Armor Panels, LLC. The acquired assets are used to manufacture armor panels.
* February 2021:\*\* CPS Technologies Corp. announced the receipt of a follow-on order from a major defense contractor valued at $1.9 million for silicon carbide (SiC) power modules.

**Leadership & Team:**

* Michael McCormack:\*\* President and CEO. Previously served as CFO of the company and has extensive financial and operational experience within the manufacturing sector.
* Thomas B. Pillari:\*\* CFO and Secretary

**Competitive Landscape:**

* Materion:\*\* Develops and manufactures advanced materials including beryllium products, specialty alloys, and metal matrix composites. CPS differentiates itself through its focused specialization on silicon carbide-reinforced aluminum MMCs and its focus on integrated solutions.
* 3M:\*\* Offers a broad range of advanced materials, including ceramic matrix composites. CPS's differentiator is its tailored metal matrix composite solutions and a stronger focus on applications demanding high thermal conductivity and specific ballistic protection capabilities.

**Sources:**

1. https://www.cpstech.com/

2. https://www.sec.gov/edgar/browse/?CIK=0000833266

3. https://www.globenewswire.com/news-release/2023/01/17/2588969/0/en/CPS-Technologies-Receives-New-Production-Order-From-Automotive-OEM.html

4. https://www.marketscreener.com/quote/stock/CPS-TECHNOLOGIES-CORP-6331/news/CPS-Technologies-Corp-CPS-Technologies-Announces-Award-of-Follow-On-Order-for-Silicon-Carbide-Power-32589132/