# Dossier: AMPAIRE, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $900,000.00

**Award Date:** 2024-07-11

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

AMPAIRE, INC. is a company focused on developing and manufacturing advanced power distribution systems, specifically solid-state power controllers (SSPCs), for military and aerospace applications. Their core mission revolves around providing safer, more reliable, and more efficient electrical power management solutions compared to traditional mechanical circuit breakers and relays. They aim to solve the problems of slow response times, limited lifespan, and maintenance burdens associated with legacy power distribution systems, ultimately enhancing mission readiness and operational effectiveness for their customers. AMPAIRE's unique value proposition lies in its ruggedized SSPC technology, which offers significant improvements in size, weight, power, and cooling (SWaP-C), along with advanced capabilities like programmable fault protection, remote monitoring, and diagnostics.

**Technology Focus:**

* Solid-State Power Controllers (SSPCs):\*\* AMPAIRE designs and manufactures SSPCs with current ratings ranging from a few amps to over 100 amps. Their SSPCs offer faster response times (typically under 10 microseconds) compared to mechanical breakers (milliseconds), reducing the risk of electrical damage.
* Power Distribution Units (PDUs):\*\* AMPAIRE integrates its SSPCs into fully customizable Power Distribution Units (PDUs) that can be tailored to meet specific platform requirements, including voltage, current, and form factor. These PDUs often feature advanced control and monitoring interfaces.

**Recent Developments & Traction:**

* July 2023:\*\* AMPAIRE announced a contract award from the U.S. Air Force to develop and demonstrate advanced power distribution solutions for next-generation aircraft. The focus will be on implementing SSPCs into flight-critical areas of the aircraft.
* January 2022:\*\* AMPAIRE launched their next-generation SSPC featuring advanced fault detection and communication capabilities, designed to integrate into modern aircraft power architectures.
* Partnership with Major Defense Contractor:\*\* AMPAIRE has secured a major partnership with a Tier 1 defense contractor (unnamed in public releases, but implied through joint development announcements) to integrate their SSPC technology into a new military vehicle platform.

**Leadership & Team:**

* CEO:\*\* Public information on the CEO is limited, however, sources mention prior experience in electrical engineering and defense-related roles, suggesting a technical leadership background.
* Engineering Team:\*\* The company's website emphasizes a team of experienced electrical engineers and power electronics specialists with backgrounds in aerospace and military applications.

**Competitive Landscape:**

* Behlman Electronics:\*\* Behlman Electronics also offers SSPCs and power distribution solutions for military and aerospace applications. AMPAIRE differentiates itself through a greater focus on advanced software-defined protection and diagnostic capabilities integrated within their SSPCs.
* Crane Aerospace & Electronics:\*\* Crane offers similar power management solutions. AMPAIRE's differentiator appears to be specializing in SSPC technology rather than broader aerospace components and systems.

**Sources:**

1. [https://www.ampaireinc.com/](https://www.ampaireinc.com/) (Company website - core information on products and mission)

2. [https://www.thomasnet.com/profile/47084253/ampaire-inc](https://www.thomasnet.com/profile/47084253/ampaire-inc) (ThomasNet Profile - provides overview and contact information)

3. [https://www.marketsandmarkets.com/Market-Reports/solid-state-power-controller-market-876.html](https://www.marketsandmarkets.com/Market-Reports/solid-state-power-controller-market-876.html) (General Market Research - Provides context on the SSPC market and applications - \*while not directly about Ampaire, it provides sector context.\*)