# Dossier: PROTONEX LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,248,559.00

**Award Date:** 2024-08-16

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Protonex LLC, now part of Advent Technologies Holdings, Inc., is a US-based company specializing in the design, development, and manufacture of portable power solutions for military, commercial, and consumer applications. Their core mission is to provide lightweight, efficient, and reliable power systems that reduce the logistical burden associated with traditional batteries and generators, particularly for dismounted warfighters. They aim to solve the problems of heavy battery loads, limited mission endurance, and noise/heat signatures associated with legacy power solutions. Their unique value proposition lies in their expertise in fuel cell technology and advanced power management systems, enabling the creation of solutions that deliver higher energy density, quieter operation, and longer runtimes compared to conventional alternatives.

**Technology Focus:**

* Fuel Cell Systems:\*\* Protonex specializes in direct methanol fuel cell (DMFC) technology, producing systems that convert methanol fuel directly into electricity. These systems often offer significantly higher energy density than lithium-ion batteries for prolonged field operations.
* Power Management Solutions:\*\* They develop advanced power management and distribution systems, including Squad Power Manager (SPM) and Vest Power Manager (VPM) solutions, enabling soldiers to efficiently manage power from various sources (batteries, solar, fuel cells) and distribute it to multiple electronic devices.

**Recent Developments & Traction:**

* Acquisition by Advent Technologies Holdings, Inc. (2021):\*\* Protonex was acquired by Advent Technologies Holdings, Inc., a leader in fuel cell and hydrogen technology, creating synergies in fuel cell development and commercialization.
* US Army Contracts:\*\* Protonex has secured multiple contracts from the US Army to develop and supply advanced power solutions, including the SPM-622 Squad Power Manager, demonstrating ongoing demand for their technology. (Source dates back to before 2021, but highlights continued importance to the US Army even after acquisition).
* Continued Deployment of SPM and VPM Systems:\*\* Protonex continues to see deployment of its existing SPM and VPM systems with US and allied military forces, indicating established product lines and a track record of performance.

**Leadership & Team:**

* No longer an independent entity\*\*: While Protonex no longer operates with a separate executive team, key leadership now resides within Advent Technologies. Andreas Liveris serves as the Chairman and CEO of Advent Technologies. Advent's CTO, Dr. Emory De Castro, focuses on fuel cell technology. (It is difficult to ascertain who now oversees the former Protonex specific operations from the web, demonstrating a fully integrated operation within Advent Technologies).

**Competitive Landscape:**

* Ultralife Corporation:\*\* Ultralife offers a range of batteries, chargers, and power solutions for military and commercial applications. Protonex's differentiator is its focus on fuel cell technology, which offers potentially longer runtimes and higher energy density compared to Ultralife's primarily battery-based solutions.
* Saft (Now a part of TotalEnergies):\*\* Saft produces advanced batteries and energy storage systems. Protonex differentiates itself through its power management systems combined with fuel cell technology.

**Sources:**

1. [https://www.adventech.com/](https://www.adventech.com/) (Advent Technologies Holdings, Inc. official website - for acquisition information and general company overview)

2. [https://www.army.mil/article/249150/peo\_soldier\_awards\_protonex\_follow\_on\_squad\_power\_manager\_contract](https://www.army.mil/article/249150/peo\_soldier\_awards\_protonex\_follow\_on\_squad\_power\_manager\_contract) (US Army article referencing continued contract work and demonstrating sustained demand - demonstrates ongoing importance)

3. [https://www.gao.gov/products/gao-22-104410](https://www.gao.gov/products/gao-22-104410) (GAO report mentioning Protonex's SPM within broader military power strategies. Highlights the strategic relevance of the company's products.)