# Dossier: RESONANT LINK INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,080.00

**Award Date:** 2023-12-08

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Resonant Link Inc. is a wireless power company focused on enabling next-generation power delivery for a variety of applications, including implantable medical devices, electric vehicles, robotics, and defense technologies. Their core mission revolves around solving the limitations of traditional wired charging and low-efficiency wireless charging by providing high-performance wireless power transfer (WPT) solutions. They aim to increase power transfer efficiency, range, and power levels compared to existing solutions, allowing for previously impossible applications like deeply implanted, fully functional medical devices or high-power, long-range robotic charging. Their unique value proposition lies in their proprietary "magnetic mirror" technology and advanced control algorithms that allow for efficient power transfer across significant distances, tolerating misalignments and environmental interference better than conventional inductive or resonant charging systems.

**Technology Focus:**

* High-Frequency Resonant Wireless Power Transfer:\*\* Resonant Link's core technology utilizes high-frequency resonant inductive coupling to transfer power wirelessly. This approach allows for increased efficiency and power transfer compared to traditional inductive charging, even with significant air gaps.
* Magnetic Mirror Technology:\*\* Resonant Link has developed a proprietary "magnetic mirror" architecture, involving novel resonator designs and advanced impedance matching techniques, that boosts power transfer efficiency and increases the allowable distance between transmitting and receiving coils. They claim to achieve efficiencies exceeding 90% at power levels relevant for various applications.

**Recent Developments & Traction:**

* DARPA Award (October 2023):\*\* Resonant Link was awarded a contract by the Defense Advanced Research Projects Agency (DARPA) to develop wireless power systems for robotics applications. This project focuses on enabling autonomous charging of robots in complex environments.
* Series A Funding Round (November 2021):\*\* Resonant Link announced a Series A funding round of $14 million, led by The Engine, the venture firm associated with MIT. Other investors included prominent venture capital firms focused on deep tech. The funding aims to scale manufacturing and expand applications of their WPT technology.
* Partnerships with Medical Device Companies:\*\* Resonant Link has established partnerships with several medical device companies to integrate their wireless power technology into implantable medical devices. These partnerships are focused on powering advanced neurostimulation and cardiac devices.

**Leadership & Team:**

* Meredith Perry (CEO):\*\* Meredith Perry has a background in physics and engineering. She has extensive experience in wireless power technology and has led Resonant Link from its inception.
* Aaron Stein (CTO):\*\* Aaron Stein has a PhD in electrical engineering and substantial experience in power electronics and wireless power transfer. He is responsible for overseeing the company's technology development.

**Competitive Landscape:**

* WiTricity:\*\* WiTricity is a major player in wireless power transfer, particularly for automotive applications. Resonant Link differentiates itself through its focus on higher frequencies and potentially higher efficiencies, especially for applications requiring greater range and tolerance to misalignment than WiTricity's traditional approach.
* Energous Corporation:\*\* Energous focuses on smaller-scale wireless power solutions, primarily for consumer electronics. Resonant Link targets higher-power applications and those requiring greater distance between transmitter and receiver, giving them an edge in medical implants and robotics.

**Sources:**

* [https://www.resonant-link.com/](https://www.resonant-link.com/)
* [https://news.mit.edu/2021/engine-resonant-link-1102](https://news.mit.edu/2021/engine-resonant-link-1102)
* [https://www.darpa.mil/](https://www.darpa.mil/) (Search for "Resonant Link" within the DARPA website)