# Dossier: JEEVA WIRELESS INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,759.00

**Award Date:** 2024-05-10

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Jeeva Wireless Inc. is a company focused on developing and commercializing extremely low-power, backscatter communication technology for the Internet of Things (IoT). Their primary business is enabling battery-free and energy-harvesting sensors and devices that can communicate wirelessly over long ranges. Jeeva's core mission is to dramatically reduce the energy consumption of wireless devices, addressing the limitations imposed by battery life and the high costs associated with battery maintenance and replacement. They aim to solve the challenges of connecting billions of sensors in environments where traditional wireless technologies are impractical or uneconomical. Jeeva's unique value proposition lies in its ability to offer a drastically more energy-efficient communication solution, potentially unlocking new applications for IoT in industries like agriculture, industrial automation, and defense where persistent monitoring and connectivity are critical, while minimizing the logistical burden of battery reliance.

**Technology Focus:**

* Passive Backscatter Networking: Jeeva's core technology revolves around passive backscatter communication, where devices reflect ambient radio frequency (RF) energy or signals transmitted by a "wake-up" transmitter, rather than generating their own RF signal. This significantly reduces power consumption compared to traditional wireless technologies.
* Patented Protocol and Chipset: They've developed a proprietary protocol and chipset optimized for ultra-low power operation. Their technology enables communication at data rates suitable for sensor data transmission (claimed throughputs, while varied by source, are generally cited in the kbps range at distances up to 300 meters).
* Low-Power Wake-up Receiver: Jeeva employs a low-power wake-up receiver technology that listens for a signal from a basestation or gateway. The receiver's primary function is to detect a coded sequence that wakes the device, after which it commences backscatter communication using the base station's existing RF signal.

**Recent Developments & Traction:**

* Seed Funding (Undisclosed Date, ~$4M Reported):\*\* Jeeva Wireless raised a seed funding round from investors including Boeing HorizonX Ventures, indicating early-stage validation in the aerospace sector. While the exact date is not readily available, records indicate closure around 2018/2019.
* Partnership with Boeing (Announced Publicly):\*\* Jeeva has publicly announced a partnership with Boeing (via Boeing HorizonX Ventures). While specifics are confidential, it hints at the application of their technology in aerospace and potentially defense-related applications within Boeing's ecosystem.
* Pilot Deployments:\*\* Jeeva Wireless has undertaken pilot deployments of its technology in various industries, including agriculture, for monitoring environmental conditions. Specific details of defense related pilot deployments are not publicly available.

**Leadership & Team:**

* Scott Watterson (CEO):\*\* Scott has a background in managing and growing technology companies.
* Bharath Bhargava (Founder):\*\* Bharath has a PhD in Electrical Engineering from the University of Washington and is the technical visionary behind the company's core technology. His academic work focused on backscatter communication and wireless sensor networks.

**Competitive Landscape:**

* Wiliot:\*\* Similar to Jeeva, Wiliot focuses on battery-free Bluetooth technology. Jeeva's differentiator may lie in its specific backscatter architecture, potentially offering advantages in range or power efficiency depending on the specific application.
* Other RFID and NFC providers:\*\* While RFID and NFC also enable passive communication, Jeeva aims to provide longer range and higher data rates compared to traditional RFID and NFC systems.

**Sources:**

1. [https://www.crunchbase.com/organization/jeeva-wireless](https://www.crunchbase.com/organization/jeeva-wireless)

2. [https://news.microsoft.com/innovation-stories/low-power-sensors-microsoft-research-jeeva-wireless/](https://news.microsoft.com/innovation-stories/low-power-sensors-microsoft-research-jeeva-wireless/)

3. [https://spectrum.ieee.org/batteryfree-wireless](https://spectrum.ieee.org/batteryfree-wireless)

4. [https://horizonx.boeing.com/portfolio/jeeva-wireless/](https://horizonx.boeing.com/portfolio/jeeva-wireless/)