

TECH OFFER

Magnetic Interference Field to Help Reduce Snoring and Improve Sleep Quality



KEY INFORMATION

TECHNOLOGY CATEGORY:

Healthcare - Medical Devices

Personal Care - Wellness & Spa

TECHNOLOGY READINESS LEVEL (TRL): **TRL9**

COUNTRY: **SINGAPORE**

ID NUMBER: **TO175149**

OVERVIEW

Quality sleep is vital for overall health, impacting everything from cognitive function to physical well-being. It supports memory, mood, and immune function, while reducing the risk of chronic diseases. In contrast, poor sleep leads to fatigue, impaired judgment, and a higher risk of illness, underscoring the need for uninterrupted, restful sleep for daily function and long-term health.

Current medical devices and surgical options for snoring reduction, like CPAP machines, Mandibular Advancement Devices (MADs), Radiofrequency Ablation (RFA), Uvulopalatopharyngoplasty (UPPP), offers varying levels of effectiveness but often come with drawbacks. While CPAP and MADs are non-surgical, they can be uncomfortable, leading to poor patient adherence due to issues such as mask discomfort or jaw pain. Surgical options vary in invasiveness and come with potential complications, often resulting in low patient compliance. This highlights the need for more comfortable, less invasive alternatives.

This patented magnetic interference technology reduces or eliminates the physical discomfort, and/or risks associated with

current methods. The technology enhances blood circulation, leading to improved sleep quality. By addressing the relaxation of the palate muscle, which can obstruct the airway during sleep, this technology effectively tackles the root cause of snoring. Integrated into a pillow or other forms, it boosts blood flow to the palate muscle, helping to tone it and prevent it from collapsing during sleep.

The technology owner is open to develop and test-bed new use cases in various industries such as wellness, sports-wear, furniture design and producers, hotels, airlines, hospitals and sleep clinics.

TECHNOLOGY FEATURES & SPECIFICATIONS

This technology generates a unique magnetic interference cloud that differs from conventional magnets as it enhances the cohesion of liquid molecules and tones the blood vessels, increasing the tension in arterial walls to improve targeted blood circulation and allow easier breathing.

- **Blood Oxygen Saturation:** Promotes optimal blood oxygen saturation levels, typically within 3 to 6 hours of sleep, maintaining it at higher levels compared to non-users.
- **Improved Breathing:** Prevents the palate muscles from collapsing during sleep, keeping the airway open throughout the night. This toning and enlarging of airway muscles boosts oxygen exchange and helps blood oxygen levels peak in half the usual time, resulting in reduction in frequency of breathing pauses as demonstrated through polysomnography tests.

POTENTIAL APPLICATIONS

This platform technology is designed to improve blood circulation, has a wide range of applications across various industries:

- **Wellness Industry:** Improves snoring and overall sleep quality
- **Travel Industry:** Promotes quality rest, reduces snoring and mitigates the effect of jetlag
- **Medical Industry:** Offers potential management for sleep apnea (requires further clinical validations)

This technology can also be explored in parallel verticals such as:

- **Sports Industry:** Enhances athletic performance and aids in recovery

UNIQUE VALUE PROPOSITION

- Technology can be incorporated into wearables for sleep/sports related accessories without maintenance throughout its useful life.
- As a sleep tech, it helps to reduce snoring and improve sleep quality in a comfortable way without the need for intrusive aids such as a nasal mask, mouth pieces or oral appliances to manage the problem.