

Docket #: S13-430

Power management and power conversion for implantable stimulators or sensors

Researchers in Prof. Ada Poon's laboratory have developed a way to increase the efficiency of rectification and power management of wirelessly powered implants that are operated in the electromagnetically weakly coupled regime. The device employs a coil with a characteristic dimension in the mm-range with a rectifier, and is typically housed in a RF transparent case. The device operates in the high MHz to low GHz range, and uses a rectifier to convert the AC signal to a DC signal.

Applications

- Wireless implantable devices

Advantages

- Increases the efficiency of AC-DC conversion for miniaturized implants powered by high frequency electromagnetic waves

Patents

- Published Application: [20150249344](#)
- Published Application: [20180296849](#)
- Issued: [10,004,913 \(USA\)](#)
- Issued: [10,828,502 \(USA\)](#)

Innovators

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