



Carbon Nanotube Power Inductor

Tech ID: 10-0021

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Status:

Seeking R&D and/or
licensing partner

Patent Pending

Inventor Bio:

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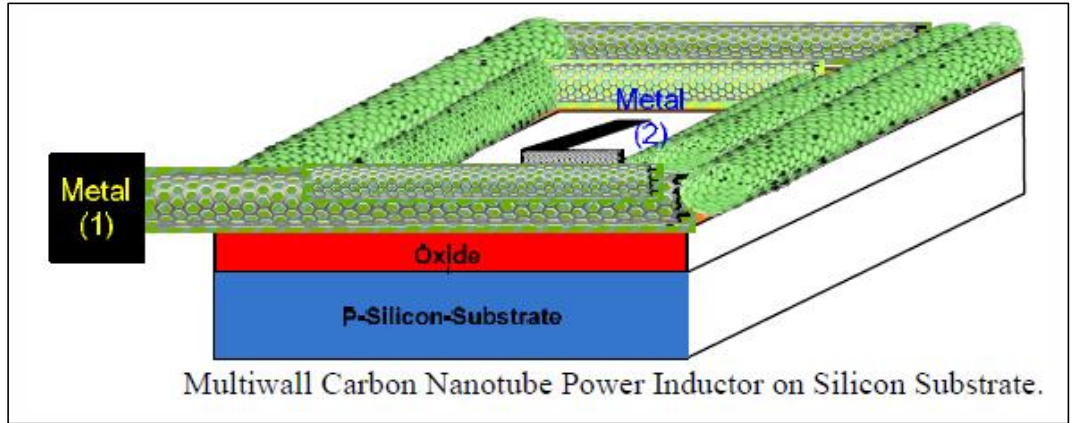
Center for Materials for
Information Technologies

Over 100 academic
publications

4 Patent Applications

Multi-Walled concentric bundled Carbon Nanotube based power inductor

- Made using carbon nanotubes (CNTs); invention also includes multi-layer inductors, transformers, and power converters
- CNTs result in low eddy current, low proximity effect loss, and low AC resistance; good for high frequency circuits
- CNT inductor 50x greater performance than copper



Advantages

- Higher inductance, Q-factor and self-resonance frequency (SRF) with various geometrical parameters
- Increased performance compared to traditional power inductors
- Sustains a larger amount of heat than conventional inductors without breaking down

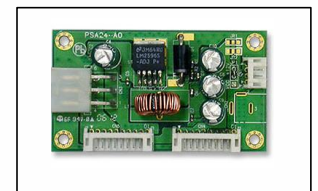
Applications



Inductors



Power converters



Circuit Board & Electronic Components

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