Development Platform Extends Wireless Power To New Product Categories

NuCurrent's NuEva HF Development Platform provides innovative options for product developers interested in wireless charging. The platform, which is based on inductive resonant power transfer, brings new functionality and benefits compared to RF-based methods and inductive-based charging methods like Qi (see the figure).

"There are a great number of product categories that aren't well-served by RF and inductive charging," said CEO, Jacob Babcock. "NuEva HF delivers power levels about 1,000X higher than RF and it provides positioning flexibility about 100X that of Qi, plus it offers the ability to charge multiple devices simultaneously. So, for the first time, manufacturers are finding an option that really meets the needs for their products."

"High-frequency, inductive resonant wireless power solutions (like those promoted by AirFuel Alliance) hold great promise, but without some key innovations like extended range, thermal and EMI mitigation, and cost improvements, manufacturers have been reluctant to put the technology into their products," said Mike Harmon, director of marketing. "This is changing with the announcement of NuCurrent's NuEva HF Development Platform."

The NuEva HF platform operates at 6.78 MHz, the same frequency as the standard developed by the AirFuel Alliance. This high-frequency method of power transfer delivers multi-device charging from a single transmitter, greater spatial freedom and positioning flexibility, high system efficiencies and uniform charging zones, and power levels up to 300 W.

"NuEva HF represents a generational leap forward for inductive resonant power transfer." said Babcock. "From gaming and robotics to personal transportation and medical devices, product developers are now discovering a proven path to wireless power with NuCurrent."

NuEva HF offers several patented and proprietary technologies including:

- Surface "repeater" technology that extends charging surface areas using low-cost passive electronics driven from a single power source.
- Multi-layer, multi-turn (MLMT) antennas that increase efficiencies and lower thermals
- Methods for cost-effective EMI mitigation
- In-band communications for reduced cost system (compared to Bluetooth)
- Options for power transfer through a variety of materials (metal, tissue).

For more information, see the technology demonstration or see the company website.

Figure. The NuEva HF Development Platform offers patented high-frequency wireless charging technology, delivering up to 300 W of power, multi-device charging and extended freedom of placement for a host of new product applications.