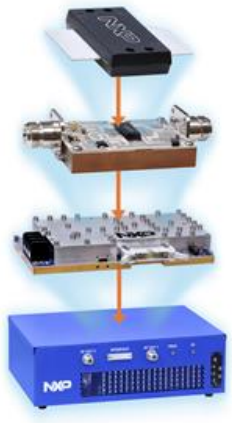
NXP Unlocks Access to RF Energy

June 26, 2018

Multi-Level Portfolio Paves the Way for Using RF Energy Transistors

LONG BEACH, Calif., June 26, 2018 (GLOBE NEWSWIRE) -- **(IMPI ANNUAL MICROWAVE POWER SYMPOSIUM 2018) –** The enhanced control features and reliability that solid-state technology brings to systems using RF energy have long been understood, but RF power transistors lacked development tools to help engineers leverage them. NXP Semiconductors N.V. (NASDAQ:NXPI), today announced their RFE Series of system solutions for RF Energy. The 2.45 GHz, 250 W platform solutions help engineers prototype and develop innovative, high performance systems in exciting new ways.

Explore the benefits of solid state RF energy using NXP's RF Energy Lab Box



From RF transistors to development platforms, NXP offers fast prototyping to replace vacuum tubes with solid state RF energy

The RFE Series features a multi-level portfolio that addresses each step for building a successful RF Power design:

- **RFEL Lab Box** – A plug-and-play RF generator with reflected power measurement, driven by an intuitive PC-based Graphical User Interface (GUI) with auto-tuning features. The lab box is fully integrated, only requiring a PC to be operated. It is designed for evaluation and initial prototyping, without the need for RF expertise or equipment.
- **RFEM Module** – Combines a line-up of RF power transistors with an NXP Kinetis microcontroller, supporting an extensive software Application Programming Interface (API) that allows multiple operations such as frequency sweeps and closed-loop modes. The module is designed for fast prototyping, without requiring extensive RF expertise.
- **RFEP Pallet** – A three-stage power amplifier reference design intended for RF engineers who want to leverage NXP's RF matching know-how to speed up their design cycle.
- **RF Transistors** – NXP offers high-performance RF components with associated evaluation boards, which are for RF power experts to use.

With the lab box, system developers will be able to create prototypes quickly and cost effectively. Once the proof of concept is complete, engineers can leverage the module and pallet to accelerate the design of their production system. In addition, NXP is building an ecosystem of skilled and vetted design houses and ODM partners to receive customized, production-ready solutions faster.

"Our RFE Series features tools to speed up the development of RF systems," said Pierre Piel, senior director and general manager for multi-market RF power at NXP. "Like Matryoshka dolls, we are wrapping up NXP's RF transistors with multiple levels of hardware and software that minimizes the complexity involved in developing RF Energy systems."

Unlocking Innovation

Transistors are bringing RF power systems using vacuum tubes to the next level.

Key features:

- Supports accurate power control over the full dynamic range, enabling frequency shifting that helps make precise use of RF energy.
- Delivers steady power for years, with minimal performance degradation over time, lowering the total cost of ownership.
- Operates at typically 30 or 50 V, for enhanced safety.

“Solid-state RF energy is set to revolutionize various markets ranging from consumer cooking to medical ablation to industrial heating and more, where precision, flexibility and repeatability is crucial,” said Dr. Klaus Werner, executive director of the RF Energy Alliance. “Solutions like NXP’s new RF energy series will arm engineers with the necessary means to bring this innovative technology into the mainstream market.”

Pricing and Availability

NXP debuts its RFE Series at 2.45 GHz, 250 W, with full availability in September 2018.

- The RFEL24-500 is a 2x250 W lab box, priced at $10,000 USD.
- The RFEM24-250 is a 250 W module, priced at $2,500 USD. Two RFEM24-250 modules are included in the RFEL24-500 lab box.
- The RFEP24-300 is a 300 W pallet, priced at $1,500 USD.

Note: These prices are suggested resale prices through NXP approved suppliers.

All three solutions are built around NXP’s flagship MRF24300N 300 W LDMOS transistor, designed for 2400-2500 MHz operations at 60 percent drain efficiency. The MRF24300N RF transistor is shipping in volume and is part of NXP’s Product Longevity Program guaranteeing availability until at least 2026.

To learn more, visit NXP at IMPI or at www.nxp.com/RFenergy.

About NXP Semiconductors
NXP Semiconductors N.V. (NASDAQ:NXPI) enables secure connections and infrastructure for a smarter world, advancing solutions that make lives easier, better and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation in the secure connected vehicle, end-to-end security & privacy and smart connected solutions markets. Built on more than 60 years of combined experience and expertise, the company has 30,000 employees in more than 30 countries and posted revenue of $9.26 billion in 2017. Find out more at www.nxp.com.

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