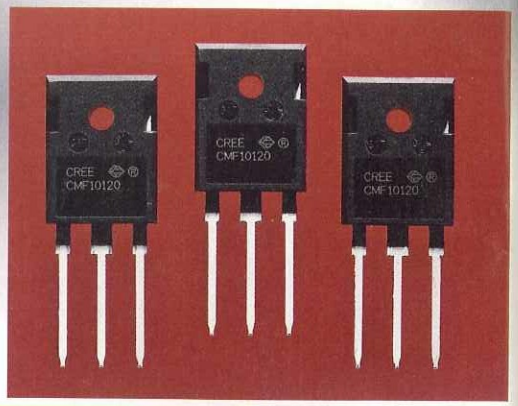
ECN Readers Choice TECH AWARDS 2011



WINNERS

Passive & Discrete Components (tie)

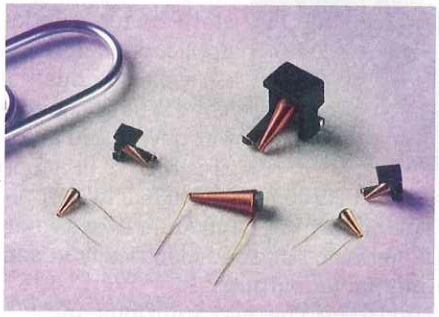
1200-V SiC MOSFET Helps Conserve Energy for 3-10 kW Alternative Energy, Power Applications

Cree, Inc. extended its Z-FET family with a lower amperage 1200V SiC MOSFET. The new device features a smaller current rating that enables it to replace the silicon transistors (IGBTs) that are currently used in power inverter designs between 3 kW and 10 kW. Applications include high-voltage power supplies and auxiliary power electronics circuits, especially those designed for conversion of three-phase input power, solar power inverters, industrial motor drives, high-power DC data center power architectures, and PFC circuits. Cree's new SiC MOSFET is rated for 12 A at its operating temperature of 100°C and delivers blocking voltages up to 1200 V with a typical on-state resistance ($R_{DS(ON)}$) of 160 mΩ at 25°C. Cree's new SiC MOSFET exhibits an $R_{DS(ON)}$ value that remains below 200 mΩ across its entire operating temperature range to reduce switching losses in many applications by up to 50 percent, increasing overall system efficiencies up to 2 percent while operating at 2- to 3-times the switching frequencies when compared to the best silicon IGBTs, according to the company.

Cree, Inc., 919-313-5300, www.cree.com

Conical Inductors Address Broadband Industry's High-frequency, High-power and Wide bandwidth Trends

Gowanda Electronics' inaugural line of Ultra-Broadband Conical Inductors – the "C" Series – offers up to 150-W power capability, desirable co-planarity, and robust construction. Gowanda's broadband conicals address industry design trends requiring higher frequency, higher power, smaller size and wider bandwidth components. The conicals' 3-in-1 design (replacing three inductors with one conical) reduces the number of components, thereby saving precious board space and enhancing performance. The conicals also provide a predictable frequency response and repeatable RF performance.

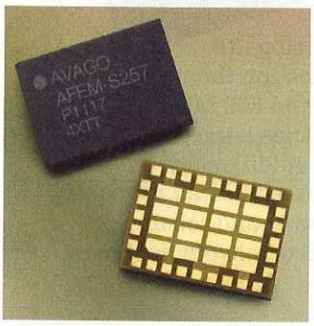


Gowanda Electronics
716-532-2234
www.gowanda.com

WINNER

Wireless

ront-end Module Enables WiMAX oexistence Operation on Same Device



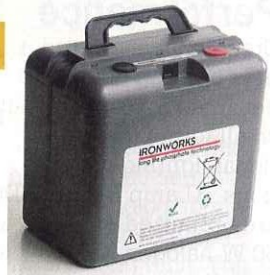
vago announced a complete RF front-d module (FEM) for WiMAX radios mobile handset or portable PC appli-tions. The AFEM-S257 module is signed for coexistence operation of MAX with other cellular and WiFi dios in the same device. The module atures two receive ports and a single nsmit port in a small 5 mm x 7 mm mm package for space-constrained bile applications in the 2.5 GHz to 2.7 Hz frequency range. Using the compa-'s 0.25-µm GaAs enhancement-mode pHEMT process and Film Bulk oustic Resonator (FBAR) filtering technologies, the module delivers sirable performance across voltage and temperature levels. FBAR chnology delivers steep roll-off and low insertion loss, resulting in tended battery life and talk time and better signal quality.

ago Technologies, 800-235-0312, www.avagotech.com

WINNER

Power Sources

on Phosphate Battery resents as a Sealed ead Acid Battery eplacement



cro Power's IronWorks Iron Phosphate ttery solution serves as a drop-in replacement for Sealed Lead id (SLA) batteries. This new standard U1 format battery intended use with mobile equipment offers light weight, long runtime, t charge time and long cycle life. IronWorks is based on Lithium n Phosphate. The battery features thousands of cycles with full 0 percent discharge, zero maintenance for several years; and fuel uging and battery status are reported via standard SMBus. They cept SLA charge regimens and tout a robust mechanical design.

cro Power, 800-576-6177, www.micro-power.com