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## Transphorm unveils Gallium Nitride diode and demonstrates over 99% efficient DC-DC Boost Converter at APEC

Transphorm 600 volt diodes using its patented EZ-GaN™ technology are ultra-efficient, compact and easy-to-embed, and cut energy lost by 20 percent

**FORT WORTH, Tex.** March 7, 2011 – Today at the Applied Power Electronics Conference (APEC), Transphorm Inc. revealed how it would solve the large and growing problem of electrical energy waste in power conversion. The company announced the availability of its first product: power diodes based on its patented, high-performance EZ GaN™ (Gallium Nitride) technology. Transphorm's efficient, compact, and easy-to-embed solutions cut energy waste by 20 percent and simplify the design and manufacturing of a wide variety of electrical systems and devices, including motor drives, power supplies and inverters for solar panels and electric vehicles. To demonstrate the performance advantage of its patented GaN based technology, Transphorm will showcase at the APEC exhibition a Total GaN™ based, dc-to-dc Boost Converter running at more than 99 percent efficiency.

"On the heels of our February 23 launch, we are pleased to announce the availability of samples of our first product at APEC and showcase our technology to customers, partners and other stakeholders," said Umesh Mishra, CEO of Transphorm. "For customers looking for a low-risk roadmap to the next generation of power conversion technology, Transphorm provides a cost-effective, customizable and easy-to-use solution ready for commercial scale."

Heat waste that occurs during power conversion is equivalent to the daily output of 318 coal plants, and it costs the U.S. economy \$40 billion per year. Transphorm is the first company to provide a viable solution to

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inefficient power conversion, by commercializing a high-voltage normally off GaN solution. The company's GaN-based power converters are designed with 600 Volt transistors and low loss power diodes, making them the industry's fastest and most efficient conversion technology. They come in industry-standard packages and are designed for optimum high-frequency switching, lowest loss and highest efficiency.

"It is critical to realize high performance under high voltage switching operation that is required in real applications. Transphorm's Total GaN™ based Boost Converter operating at over 99% efficiency at 400 Volts demonstrates this for the first time," said Primit Parikh, President of Transphorm. "From material technology and device processing to circuit design and module assembly, Transphorm designs its power conversion solutions to meet the needs of our customers, helping them scale quickly and save money."

By using a proprietary EZ-GaN™ platform, Transphorm can reduce power system size, increase energy density while reducing overall system cost. This design uses fewer components, minimizes snubbers and filters, simplifies module packaging, and enables high-frequency design by reducing transients.

Transphorm designs and supplies application-specific modules for a variety of customers. A vertically integrated company, Transphorm offers a high performance product at competitive cost and rapid time to market.

Leveraging breakthroughs in modern materials and a world-class team, Transphorm's ultra-efficient and cost-competitive power modules enables significant energy savings across the grid, from HVACs to hybrids, and from servers to solar panels. For more information about Transphorm, stop at Booth No. 346 at APEC or visit [www.transphormusa.com](http://www.transphormusa.com).

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## About Transphorm

Transphorm is redefining electric power conversion, providing cost-competitive and easy-to-embed power conversion modules that reduce costly energy loss by up to 90 percent, and simplify the design and manufacturing of motor drives, power supplies and inverters for solar panels and electric vehicles. From material technology and device fabrication to circuit design and module assembly, Transphorm designs and delivers its power conversion devices and modules to meet the needs of global customers, helping them scale quickly and save money. By creating an ecosystem of electrical systems manufacturers powered by Transphorm, the company accelerates the adoption of application-specific power modules and paves the way for the next generation of electrical systems designed for optimal efficiency. To learn more about Transphorm, please visit [www.transphormusa.com](http://www.transphormusa.com).

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