

## Transphorm Enables the World's First GaN-based High Power Converter

*600V Gallium Nitride (GaN) High Electron Mobility Transistors (HEMTs) and modules employ patented EZ-GaN™ technology; achieve vital milestone in broad adoption of GaN-based power conversion*

**Washington, D.C.** – Feb 26, 2013 – Transphorm Inc. today announced at the 2013 ARPA-E Energy Innovation Summit that its novel 600V Gallium Nitride (GaN) module has enabled the world's first GaN-based high power converter. Transphorm will demonstrate the product built with its customer-partner Yaskawa Electric, Japan at the upcoming APEC 2013 industry conference. The announcement underscores the significant technical and commercial progress that Transphorm has made since being awarded ARPA-E funding in 2011, to reduce the vast amount of electric power waste globally.

Yaskawa's product, a 4.5kW PV power conditioner, is powered by Transphorm's™ 600V GaN half-bridge modules, which has enabled it to achieve several industry firsts:

1. The first high power converter product in the world utilizing GaN technology
2. The first efficient PV power conditioner to operate at 50KHz
3. Simultaneous achievement of a 40% reduction in inverter size and 98% efficiency operation, a form and function benefit uniquely enabled by Transphorm's EZ-GaN module technology

Transphorm's patented, high-performance EZ-GaN™ module technology, combines low switching and conduction losses offering reduced energy loss of over 50% compared to conventional silicon based power conversion designs while simultaneously operating at higher frequency.

"The partnership between Yaskawa, the world leader in inverter solutions, and Transphorm, the world leader in GaN-based power conversion, has produced the world's first high power GaN power converter," said Umesh Mishra, CEO of Transphorm. "This is a disruptive first step which signals the broad adoption of GaN-based power conversion solutions."

"By teaming with Transphorm, Yaskawa is again the technology leader in introducing new technologies into the market place with tremendous benefits to customers and society" said Tatsuya Yamada , General Manager Environment & Energy Business Div. Drives Division of Yaskawa Electric.

Transphorm's efficient, compact, and easy-to-embed solutions simplify the design and manufacturing of a wide variety of electrical systems and devices, including power supplies and adapters, PV Inverters for solar panels, motor drives and power conversion for electric vehicles. Transphorm's proprietary EZ- GaN™ platform can reduce power system size, increase energy density and deliver high efficiencies across the grid. For customers looking for a low-risk roadmap to the next generation of power conversion technology, EZ-GaN™ provides a cost-effective, customizable and easy-to-use solution ready for commercial scale. For more information about Transphorm, visit [www.transphormusa.com](http://www.transphormusa.com).

## About Transphorm

Transphorm is redefining electric power conversion, providing cost-competitive and easy-to-embed power conversion modules that reduce costly energy loss by more than 50%, 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. 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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