

**March 21, 2016**

## **Pi Innovo and GaN Systems collaborate to offer electronics design services to exploit the advantages of gallium nitride semiconductors**

**A collaboration between Pi Innovo's electronics design and development expertise and the superior performance of GaN Systems' gallium nitride (GaN) semiconductors, offers automakers a pathway to the efficient and effective electrification of auxiliary systems for multi-voltage conventional, hybrid-electric, and pure electric vehicles.**

Multi award winning GaN Systems' compound semiconductor devices are cost competitive with silicon devices, while offering vastly superior performance. Based on GaN Systems' breakthrough technology, these gallium nitride devices use low cost GaN-on-silicon base wafers. The company manufactures a range of gallium nitride high power transistors for automotive, consumer, datacenter, industrial and solar/wind/smart grid applications. Featuring exceptionally low on-resistance and negligible charge storage, these devices enable switching efficiencies well in excess of current silicon-based solutions, and offer dramatic benefits to switching power supply designs, inverters, hybrid and electric vehicles, battery management and power factor correction.

Pi Innovo has designed and implemented custom motor control electronics to take advantage of the benefits of GaN Systems semiconductors in applications with a wide range of input voltages from 12V to 300V. This controller design provides a functional starting-point for the development of 48V and above, high-speed motor-driven vehicle systems, and adds to a growing portion of Pi Innovo's business providing custom electronics solutions across multiple markets.

Following the success of this GaN-based multi-voltage motor controller development project, Pi Innovo is now offering design and development services in support of customers looking to adopt this technology for a wide range of electronics design applications in automotive and adjacent markets. The company is uniquely positioned to support customers wanting to develop prototype evaluations to quantify the benefits of GaN technology. Pi Innovo can also provide customized cost effective high volume designs for customers looking to go into production.



"Pi Innovo's hardware, software and applications engineers worked closely with the GaN Systems team to understand their semiconductor design requirements and to ensure the final controller design maximizes the reduction in size, weight and power consumption benefits that gallium nitride semiconductors provide," said Dr. Walter Lucking, CEO of Pi Innovo. "Working with GaN Systems on this project has been a great experience for our team and we're looking forward to continuing our close partnership to support our customers on many future designs."

"Having a technology development partner like Pi Innovo that really understands the intricacies of control electronics design for vehicle applications, is invaluable in supporting the continued adoption of GaN in the electrification of vehicle systems," said Jim Witham, GaN Systems' CEO.

*An example of a Pi Innovo GaN motor controller will be on show at APEC 2016, March 20-24 2016, in Long Beach, CA, at GaN Systems' booth, #2125. For more information about Pi Innovo's design services for gallium nitride (GaN) semiconductors, see: <http://pi-innovo.com/gan/>*

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## Notes to editors

**GaN Systems** is the place electronics designers go to realize all the system benefits of gallium nitride transistors in their power conversion applications. To overcome silicon's limitations in switching speed, voltage and current, the company develops the most complete range of gallium nitride power switching transistors for consumer, datacenter, industrial and transportation markets. GaN Systems' Island Technology® addresses today's challenges of cost, performance, and manufacturability resulting in products that are smaller and more efficient than other GaN design approaches. The fabless semiconductor company is headquartered in Ottawa, Canada. For more information, please visit: [www.gansystems.com](http://www.gansystems.com).

**Pi Innovo** is a world leader in the development and manufacture of electronics for the automotive, transportation, military and industrial markets, offering custom and off-the-shelf electronics solutions. Using its OpenECU® platform, the same proven, robust, reliable and reusable ECU hardware can be applied in successive rapid prototyping development projects and fleet trials, or in niche production vehicles. Because all OpenECU modules are designed and manufactured by Pi Innovo, the company can meet individual customer's needs by creating custom variants from prototyping to production applications. For more information visit: [www.pi-innovo.com/](http://www.pi-innovo.com/).

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