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Industry's coolest 100W GaN HEMT is now production ready...

NITRONEX'S NEW GENERATION POWER TRANSISTOR ACHIEVES INDUSTRY-LEADING THERMAL PERFORMANCE

Durham, NC (November 15, 2010) - Nitronex, a leader in the design and manufacture of gallium nitride (GaN) based RF solutions for high performance applications in the defense, communications, and industrial & scientific markets, has developed a new generation of power transistor platform technology to meet the growing demand for wideband, high power and robust RF power amplifiers. The new generation platform is specifically designed to meet the stringent performance requirements of military communications, jammers and radars. The primary benefit of products based on this platform is very low thermal resistance, which results in higher output power and efficiency in broadband applications combined with improved ruggedness.

The NPT1010 is the second product designed on this new platform. With a thermal resistance of 1.4°C/W, the NPT1010 has the lowest thermal resistance of all GaN products at this power level in the marketplace. Normalized to power, the thermal resistance of the NPT1010 is lower than the competing 28V products by 30%. The device achieves over 60W, more than 55% drain efficiency and over 14dB power gain in a 500-1000MHz broadband application circuit with less than 80°C rise in junction temperature.

“We focused our efforts on reducing thermal rise and developed a complete plan to attack all the key factors: FET design, die thickness, die attach methods and package materials. We recognized early on that the contribution of the substrate is secondary to the contribution of other factors, particularly the FET design”, said Ray Crampton, VP of Engineering at Nitronex. “By combining improvements from several areas, we achieved a 22% improvement in thermals compared to our last generation products”.

The NPT1010 is available in a ceramic air cavity package in bolt-down and pill (solder) versions. It is lead-free and RoHS compliant, is production ready, and is available from stock to 10 weeks lead time through Nitronex’s standard sales channels.

For more information about Nitronex’s 100W NPT1010 and other power transistors, visit www.nitronex.com, e-mail info@nitronex.com, or call 919-807-9100.

About Nitronex

Nitronex Corporation is an innovative leader in the design and manufacture of gallium nitride (GaN) based RF solutions. Nitronex is the pioneer in developing high performance gallium nitride on silicon (GaN-on-Si) semiconductor solutions using its proprietary SIGANTIC® manufacturing process. Nitronex products enable high performance applications in the defense, communications, and industrial & scientific markets. An ISO-9001 certified manufacturer, Nitronex was founded in 1999 and is headquartered in Durham, NC. Nitronex has been awarded 24 patents with 15 others pending. For more information, please visit the Nitronex web site at www.nitronex.com.

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