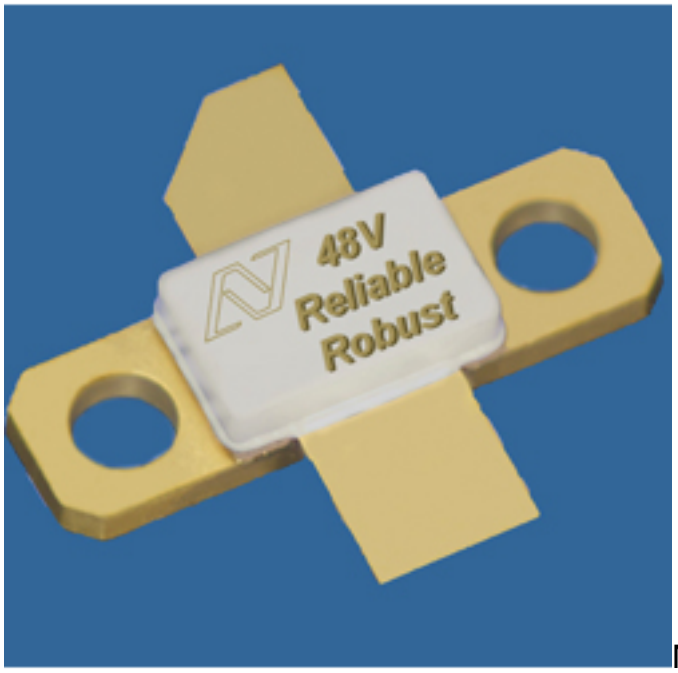
48V GaN-on-Si process platform features 114 years mean time to failure



Nitronex has developed a 48V GaN-on-Si process platform. Designated NRF2, this new platform delivers double the power density, 1-2dB higher gain, improved broadband performance, higher breakdown voltage and higher supply voltage operation over Nitronex's 28V NRF1 process technology.

The new technology further increases reliability for GaN-on-Si, with more than one million hours (114 years) mean time to failure (MTTF) at an operating junction temperature of 230°C using a stringent 10% drift failure criteria. In addition, improvements in thermal management in initial 48V products have demonstrated thermal resistance reduction of more than 40% compared to existing Nitronex products. The NRF2 process platform heavily leverages Nitronex's existing NRF1 platform, which has been used to ship more than 500,000 production devices (including more than 50,000 MMICs) since volume shipments began in 2009.

"A robust and reliable high voltage process can deliver superior performance in high-power RF applications. We have developed several semi-custom products for customers with high volume applications using the NRF2 48V technology, and our customers are very pleased with our solution versus alternatives," said Ray Crampton, VP of Engineering. "In addition to increased reliability and RF performance, we have demonstrated robustness to 15:1 output VSWR at all angles at 90°C flange temperature under saturated drive conditions."

Nitronex's patented SIGANTIC GaN-on-Si process is the only production-qualified GaN process using an industry standard 4" silicon substrate. This results in a robust, scalable supply chain and positions Nitronex well for the growth expected from

emerging GaN markets such as military communications, CATV, RADAR, commercial wireless, satellite communications and point to point microwave. Additional technology under development includes a 48V MMIC process platform. Initial 48V samples are available now with pre-production and production quantities available in early 2012. Interested parties should contact their Nitronex sales representative for further information.

www.nitronex.com [1]

Links:
[1] http://www.nitronex.com