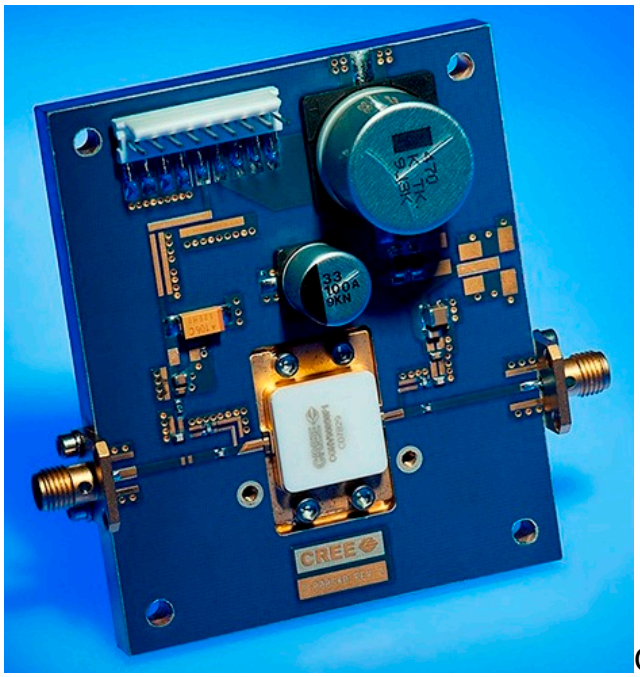
"Game-Changing" Performance for Commercial Radar and Satellite Communications



Cree, Inc. announces the release of its high-efficiency X-Band, fully matched GaN HEMT transistors for commercial radar and satellite communications applications. Rated at 50W and 100W, these new GaN devices deliver “game- changing” efficiency and performance improvements when compared to existing GaAs MESFET transistors or Traveling Wave Tube (TWT) based amplifiers.

“The new Cree® X-Band GaN HEMT product family represents disruptive technology that we believe will set new standards of efficiency and performance for high-frequency, high-power applications such as satellite communications and X-Band commercial radar,” explained Jim Milligan, director, RF and microwave. “The performance advantages of higher power ratings, higher linear efficiency and higher gain, combined with a reduced footprint, offer dramatic advantages when compared to GaAs MESFET transistors or TWT amplifiers. We believe this new product family will deliver comprehensive system benefits, including superior thermal management and significantly-reduced power supply loads. The new product family also offers a lower cost alternative to TWT amplifiers and associated high-voltage power supplies and linearization systems while improving overall system reliability.”

The X-Band product family consists of four new GaN HEMT transistors; two for satellite communications (CGHV96050F1 and CGH96100F1) and two for commercial radar applications (CGHV96050F2 and CGHV96100F2). All four transistors are offered in a small footprint (0.9 x 0.7”) package.

The efficiency advantages in using these new GaN devices can be up to three times

greater when compared to available GaAs MESFET transistors. Further, the wide video bandwidth of GaN HEMT transistors allows for their use in multi-carrier applications with two-tone spacing up to 70MHz.

The fully matched GaN HEMT transistors complement two previously released packaged MMICs, designated the CMPA5585025F and CMPA801B025F, which can also be used as drivers for the CGHV96050 or CGHV96100.

Visit Cree at the 2012 International Microwave Symposium, Booth #2125, to learn more about our new X-Band GaN HEMT transistors. For additional information about the latest X-Band GaN devices, please visit www.cree.com/rf [1].

For additional product and company information, please refer to www.cree.com [2].

Posted by Sara Cohen

Source URL (retrieved on *09/17/2014 - 1:56am*):
http://www.wirelessdesignmag.com/product-releases/2012/06/game-changing-performance-commercial-radar-and-satellite-communications?qt-most_popular=0&qt-blogs=0

Links:
[1] http://www.cree.com/rf
[2] http://www.cree.com