# Abstracts

## New design method of non-uniform distributed power amplifiers. Application to a single stage 1 W PHEMT MMIC

*C. Duperrier, M. Campovecchio, L. Roussel, M. Lajugie and R. Quere. "New design method of non-uniform distributed power amplifiers. Application to a single stage 1 W PHEMT MMIC." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 1063-1066 vol.2.*

A new design methodology of non-uniform distributed power amplifiers is reported in this paper. This method is based on analytical expressions of the optimum input and output artificial lines making up the non-uniform distributed power amplifier. These relationships are based on the optimum load line requirement for power operation. To validate the proposed design methodology, a non-uniform distributed power amplifier has been manufactured at the TriQuint Semiconductor foundry using a 0.25 /spl mu/m power PHEMT process. This single stage MMIC amplifier is made of six non-uniform cells and demonstrates 1 W output power with 7 dB associated gain and 20% PAE over multi-octave bandwidth.

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