Abstracts

Versatility and Manufacturability Considerations for a New 3-Watt X-Band Power MMIC (1992 Vol. II [MWSYM])

D. Raicu, B.M. Kraemer, D.S. Day, J.R. Basset, J. Wei, C. Hua, Y. Chung and C.S. Chang. "Versatility and Manufacturability Considerations for a New 3-Watt X-Band Power MMIC (1992 Vol. II [MWSYM])." 1992 MTT-S International Microwave Symposium Digest 92.2 (1992 Vol. II [MWSYM]): 1043-1046.

The paper presents a newly developed two-stage power amplifying MMIC capable of delivering 3 Watt at X-band with high efficiency. This MMIC is designed for operation with external matching circuits on separate ceramic substrates. By customizing these circuits, the same MIMIC can cover an entire array of different applications. The versatility of this approach is demonstrated by the implementation of this MMIC in four-power modules specified for different bandwidths, power levels and bias voltages. The small chip size and the tunability allowed by the external circuits lead to increased manufacturing yields and make possible significant cost reductions.

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