

Abstracts

Cryogenic Performance of a GaAs MMIC Distributed Amplifier (Short Papers)

C.R. Moore, W.C. Trimble, M.L. Edwards and T.R. Sanderson. "Cryogenic Performance of a GaAs MMIC Distributed Amplifier (Short Papers)." 1991 Transactions on Microwave Theory and Techniques 39.3 (Mar. 1991 [T-MTT]): 567-571.

A three-stage GaAs MMIC distributed amplifier chip, fabricated to our design, was specially packaged in a two-chip, six-stage amplifier for cryogenic operation from 1 to 10 GHz, when immersed in liquid nitrogen a fourfold reduction in amplifier noise was observed over the 4 GHz to 8 GHz frequency range. This is in agreement with the generally observed scaling with ambient temperature (in Kelvin) for discrete GaAs FET amplifiers.

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