Abstracts

K/Ka-band low-noise embedded transmission line (ETL) MMIC amplifiers (Dec. 1998, Part II [T-MTT])

Hua-Quen Tserng, L.C. Witkowski, A.A. Ketterson, P. Saunier and T. Jones. "K/Ka-band low-noise embedded transmission line (ETL) MMIC amplifiers (Dec. 1998, Part II [T-MTT])." 1998 Transactions on Microwave Theory and Techniques 46.12 (Dec. 1998, Part II [T-MTT] (1998 Symposium Issue)): 2604-2610.

The design, fabrication, and performance of producible, high-performance Kand Ka-band pHEMT low-noise MMIC amplifiers using the embedded transmission line (ETL) circuit concept with top-side grounding are reported. A state-of-the-art noise figure of 1.2 dB with 25-dB gain is achieved at 31 GHz. These amplifiers can be implemented in low-cost, ultra-compact receiver modules for emerging spaceborne phased-array communication applications.

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