

K/Ka-band low-noise embedded transmission line (ETL) MMIC amplifiers (1998 Vol. I [MWSYM])

Hua-Quen Tserng, L. Witkowski, A. Ketterson, P. Saunier and T. Jones. "K/Ka-band low-noise embedded transmission line (ETL) MMIC amplifiers (1998 Vol. I [MWSYM])." 1998 MTT-S International Microwave Symposium Digest 98.1 (1998 Vol. I [MWSYM]): 43-46.

The design, fabrication, and performance of producible, high-performance K-, and 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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