

Abstracts

HEMT Low-Noise Amplifier for Ka-Band

M.A.G. Upton, P.M. Smith and P.C. Chao. "HEMT Low-Noise Amplifier for Ka-Band." 1987 MTT-S International Microwave Symposium Digest 87.2 (1987 Vol. II [MWSYM]): 1007-1010.

Using 0.25 micron gate-length High Electron Mobility Transistors (HEMTs), a two-stage amplifier has been developed that demonstrates the potential for high-gain, low-noise pre-amplification at K_{sub a}-band. The amplifier exhibits a noise figure of 4.0 dB with 16.5 dB gain at 37.5 GHz and under slightly different bias conditions shows flat gain of around 11.0 dB from 30.5-37.5 GHz.

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