Abstracts

A 2-GHz Three-Stage AlInAs-GaInas-InP HEMT MMIC Low-Noise Amplifier

S.E. Rosenbaum, L.M. Jelloian, L.E. Larson, U.K. Mishra, D.A. Pierson, M.S. Thompson, T. Liu and A.S. Brown. "A 2-GHz Three-Stage AlInAs-GaInas-InP HEMT MMIC Low-Noise Amplifier." 1993 Microwave and Guided Wave Letters 3.8 (Aug. 1993 [MGWL]): 265-267.

A three-stage monolithic microwave integrated circuit (MMIC) low-noise amplifier (LNA) has been fabricated using 0.15-µm gate-length InP-based (AlInAs-GaInAs) high electron mobility transistor (HEMT) technology. The LNA exhibited less than 0.5-dB noise figure and greater than 35-dB gain from 2.25 to 2.5 GHz. The input and output return loss exceeded 15 dB across the band. These results are believed to be the best reported to date from a MMIC amplifier in this frequency range.

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