

Abstracts

A C-Band 4-Stage Low Noise Miniaturized Amplifier Using Lumped Elements

Y. Tsukahara, S. Chaki, Y. Sasaki, K. Nakahara, N. Andoh, H. Matsubayasi, N. Tanino and O. Ishihara. "A C-Band 4-Stage Low Noise Miniaturized Amplifier Using Lumped Elements." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1125-1128.

A C-band monolithic four-stage low noise miniaturized amplifier has been developed. It employs lumped elements for the matching circuit to reduce the chip size. In the design of the IC, an integrated CAD system was used to consider parasitic microwave components. The 1.65 mm x 2.30 mm amplifier achieved a gain of over 40 dB with a noise figure of less than 1.7 dB. The amplifier gives a minimum noise figure of 1.54 dB and a gain of 41 dB. A good agreement between measured and simulated data has been achieved.

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