

# Abstracts

## 12 GHz Low-Noise MMIC Amplifier Designed with a Noise Model that Scales with MODFET Size and Bias

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*B. Hughes, J. Perdomo and H. Kondoh. "12 GHz Low-Noise MMIC Amplifier Designed with a Noise Model that Scales with MODFET Size and Bias." 1993 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 93.1 (1993 [MCS]): 31-34.*

A scalable, bias-dependent FET noise model was developed for MMIC design. A three-stage, 12 GHz, MMIC, low-noise amplifier (LNA) was designed with the model. The LNA has a 1.6 dB noise figure and 25.6 dB gain. Lumped elements were used to design an LNA that was significantly smaller per stage (0.31 mm<sup>2</sup>) than previous MMIC LNAs.

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