Abstracts

Monolithic LNAs up to 10 GHz in a production-near 65 GHz f/sub max/ silicon bipolar technology

D. Zoschg, W. Wilhelm, J. Bock, H. Knapp, M. Wurzer, K. Aufinger, H.-D. Wohlmuth and A.L. Scholtz. "Monolithic LNAs up to 10 GHz in a production-near 65 GHz f/sub max/ silicon bipolar technology." 2000 Radio Frequency Integrated Circuits (RFIC) Symposium 00. (2000 [RFIC]): 135-138.

Monolithic LNAs for frequencies of 2, 6, and 10 GHz have been fabricated in production-near silicon bipolar technology (0.4 /spl mu/m/65 GHz, f/sub max/). Measured results in 50 /spl Omega/ noise figure and gain are 1.1 dB/28 dB at 1.9 GHz, 1.8 dB/26 dB at 5.6 GHz, 2.8 dB/21.1 dB at 9.5 GHz, and 2.5 dB/16.6 dB at 10 GHz. These noise results are state of the art for homojunction silicon bipolar technologies and are able to compete with the best results for minimum noise figures published for SiGe technologies.

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