Abstracts

Modeling of correlated noise in RF bipolar devices

S. Martin, R. Booth, Y.-F. Chyan, M. Frei, D. Goldthorp, K.H. Lee, S. Moinian, K. Ng and P. Subramaniam. "Modeling of correlated noise in RF bipolar devices." 1998 MTT-S International Microwave Symposium Digest 98.2 (1998 Vol. II [MWSYM]): 941-944.

An RF noise model is proposed for high frequency bipolar transistors considering partial correlation of shot and thermal noise sources. For frequencies f/spl ges/f/sub T///spl radic//spl beta//sub 0/ expressions are derived for input noise voltage, noise current and correlation impedance. The model is verified with data obtained from a 0.5 /spl mu/m BiCMOS technology developed for RF wireless applications.

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