

Abstracts

Low-frequency noise figures-of-merit in RF SiGe HBT technology (2002 [RFIC])

Jin Tang, Guofu Niu, Zhenrong Jin, J.D. Cressler, Shiming Zhang, A.J. Joseph and D.L. Harame. "Low-frequency noise figures-of-merit in RF SiGe HBT technology (2002 [RFIC])." 2002 Radio Frequency Integrated Circuits (RFIC) Symposium 02. (2002 [RFIC]): 333-336.

We present the first systematic experimental and modeling results of corner frequency ($f_{\text{sub C}}$) and the corner frequency to cutoff frequency ratio ($f_{\text{sub C}}/f_{\text{sub T}}$) for SiGe HBTs in a commercial SiGe RF technology. The $f_{\text{sub C}}/f_{\text{sub T}}$ ratio is examined as a function of biasing current for SiGe HBTs featuring multiple collector doping profiles (breakdown voltages) and multiple SiGe profiles.

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