Abstracts

Optimized compact active downconverters having low power consumption and high conversion gain

B.P. Kumar, G.R. Branner, D. Xu and A. Ching. "Optimized compact active downconverters having low power consumption and high conversion gain." 2002 Microwave and Wireless Components Letters 12.7 (Jul. 2002 [MWCL]): 270-272.

An in-depth technique for modeling, optimized design, and fabrication of compact, active low power downconverters, operating at /spl sim/1 GHz, is presented in this paper. The designs employ precision computer models of active devices, developed to assist in providing optimal self oscillating mixer based designs. The designs yield measured conversion gains of up to 9 dB (for maximum bias power of 17.3 mW) and 6.5 dB (for maximum bias power as low as 1.7 mW).

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