Abstracts

A low-power monolithic GaAs FET bandpass filter based on negative resistance technique

Yong-ho Cho, Song-cheol Hong and Young-se Kwon. "A low-power monolithic GaAs FET bandpass filter based on negative resistance technique." 1998 Microwave and Guided Wave Letters 8.4 (Apr. 1998 [MGWL]): 161-163.

This paper describes a monolithic GaAs FET active bandpass filter utilizing negative resistance elements. The negative resistance element was realized with a common-drain FET with series inductive feedback and the measured output impedance characteristics are given. The fabricated monolithic fourth-order filter showed an insertion loss of 0.7 dB at 4.85 GHz and a 3-dB bandwidth of 50 MHz with a DC power consumption of 7.5 mW.

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