

Abstracts

Simplified P1dB estimation of active bandpass filters

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In this letter, we propose a simple and accurate equation for the estimation of the 1-dB power gain compression point (P1dB) in the active bandpass filter. The derivation of the equation is performed on the assumption of a nonlinear parallel conduction model of the active resonator used in the filter. The P1dB's of two- and three-stage bandpass filters calculated from the proposed equation show very good agreement with the data obtained in a commercially available microwave circuits simulator. A P1dB enhancement technique based on this equation is also described.

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