Abstracts

A New Approach to Designing Active MMIC Tuning Elements Using Second-Generation Current Conveyors

J.H. Sinsky and C.R. Westgate. "A New Approach to Designing Active MMIC Tuning Elements Using Second-Generation Current Conveyors." 1996 Microwave and Guided Wave Letters 6.9 (Sep. 1996 [MGWL]): 326-328.

A new method for designing active monolithic microwave integrated circuit (MMIC) tuning elements is proposed. It will be shown that by using a cascade of GaAs FET's, one can closely model a second-generation current conveyor (CCII-) at microwave frequencies and thus synthesize many types of microwave circuit elements, including positive and negative active capacitors and inductors, and gyrators. As a result of this discovery, current conveyor synthesis techniques can now be directly applied to microwave circuit design.

❑ Return to main document.