Abstracts

A Power Amplifier Based on an Extended Resonance Technique

A. Martin, A. Mortazawi and B.C. De Loach, Jr.. "A Power Amplifier Based on an Extended Resonance Technique." 1995 Microwave and Guided Wave Letters 5.10 (Oct. 1995 [MGWL]): 329-331.

A new power amplifier based on an extended resonance technique is presented. This technique produces high power through multiplying the power handling capability of a single device by the number of devices employed while maintaining the gain of a single-device amplifier. An X-band power combining amplifier employing four 100 mW MESFET's was designed and constructed. The small signal gain was measured at 11.5 dB, and a maximum of 480 mW was obtained at 9.57 GHz with a power-added efficiency of 30.8%.

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