Abstracts

Novel push-pull integrated antenna transmitter front-end

W.R. Deal, V. Radisic, Yongxi Qian and T. Itoh. "Novel push-pull integrated antenna transmitter front-end." 1998 Microwave and Guided Wave Letters 8.11 (Nov. 1998 [MGWL]): 405-407.

A new integrated antenna power amplifier architecture is investigated. In this topology, a multifeed patch antenna is used as the tuned load of a class-B push-pull amplifier in such a manner that the fundamental radiates efficiently and higher harmonics are suppressed. This eliminates the necessity of using a second hybrid at the output of the amplifier and results in an extremely compact class of push-pull front end with lower associated circuit losses. Measured data shows that the power-added efficiency of the amplifier is greater than 55%, indicating that this new approach works as expected.

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