

Abstracts

A power re-use technique for improved efficiency of outphasing microwave power amplifiers

R. Langridge, T. Thornton, P.M. Asbeck and L.E. Larson. "A power re-use technique for improved efficiency of outphasing microwave power amplifiers." 1999 Transactions on Microwave Theory and Techniques 47.8 (Aug. 1999 [T-MTT] (Mini-Special Issue on Low-Power/Low-Noise Technologies for Mobile Wireless Communications)): 1467-1470.

An improved power re-use technique is introduced for application to outphased microwave power amplifiers. The technique allows a significant portion of the wasted out-of-phase components of the signal to be returned to the power supply, resulting in substantial improvements in overall power-amplifier efficiency. A peak re-use RF-to-DC efficiency of 63% was obtained at 1.96 GHz.

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