

Abstracts

Effect of input harmonic terminations on high efficiency class-B and class-F operation of PHEMT devices

P.M. White. "Effect of input harmonic terminations on high efficiency class-B and class-F operation of PHEMT devices." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1611-1614.

Device level harmonic balance simulations are used to show that very high efficiency can be achieved in PHEMT class-B and class-F amplifiers if efforts are made to provide proper input as well as output harmonic terminations. The simulations use a gate capacitance model which accurately describes the C_{gs} versus V_{gs} dependence for the PHEMT and are illustrated with waveform and dynamic loadline plots which relate directly to the idealized textbook view of high efficiency operation.

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