Abstracts

A 6 watt LDMOS broadband high efficiency distributed power amplifier fabricated using LTCC technology

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A novel new approach in designing high efficiency power distributed amplifiers for broadband wireless applications has been developed. This synthesis technique allows the designer to achieve power added efficiencies, during class B operation, greater than 50% while still preserving the low VSWR and broadband characteristics of distributed structures. The performance of these newly designed amplifiers can yield the same PAE and power output performance of narrow band, single-ended, reactively matched amplifiers, without the high sensitivity to manufacturing variations. This synthesis technique has been applied to develop LDMOS and PHEMT distributed power amplifiers for cellular base stations and portable communication applications.

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