Abstracts

A method for computing adjacent-channel spectral energy in cellular power amplifiers

S. Pinsky. "A method for computing adjacent-channel spectral energy in cellular power amplifiers." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1595-1598.

The requirements for energy efficiency in cellular RF power amplifiers necessitate their operation in regions of significant nonlinear distortion, with a resultant regrowth of undesired adjacent-channel spectral products that must be maintained within specified limits. This paper presents a method for predicting adjacent-channel spectral regrowth based on single-tone distortion curves that are easily measured in the laboratory and readily simulated in SPICE. The method affords a practical approach to predicting adjacent-channel power that has proven very useful for designing power amplifiers for cellular service under the IS-54 standard.

❑ Return to main document.