Abstracts

A new amplifier power combining scheme with optimum efficiency under variable outputs

C.Y. Hang, Y. Wang and T. Itoh. "A new amplifier power combining scheme with optimum efficiency under variable outputs." 2002 MTT-S International Microwave Symposium Digest 02.2 (2002 Vol. II [MWSYM]): 913-916 vol.2.

This paper presents a new power combining scheme, which has either one or four amplifiers on depending upon the levels of input signal. This approach realized by utilizing a unique combiner that is lossless and has constant gain under both scenarios. As a result, for the system where variable output power is required, this combining scheme can be used in an amplifier design with optimum efficiency. Measurement data show 15% power efficiency for the four-amplifier scenario and 28% for the single amplifier scenario at 13dBm input power. We also investigate the possibility of using this combiner in an envelope tracking amplifier.

❑ Return to main document.