Abstracts

True RMS power detection with high dynamic range

G. Klahn. "True RMS power detection with high dynamic range." 1999 MTT-S International Microwave Symposium Digest 99.4 (1999 Vol. IV [MWSYM]): 1773-1776 vol.4.

All communication systems require some form of output power reporting as a means to manage the power efficiency of the output spectrum. Traditionally, this task has been performed with diode detectors. Diode detectors are non-linear devices and require elaborate compensation techniques to linearize and operate as a true RMS (Root Mean Square) detector over a wide dynamic and temperature range. A true RMS power detection scheme has been developed, which has a 22 dB dynamic range with /spl plusmn/1 dB accuracy and operates over a temperature range of -40/spl deg/C to +80/spl deg/C.

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