

Abstracts

Multi-octave 200 MHz to 20 GHz amplifier for extended range digital log video amplifier application

A.S. Virdee and B.S. Virdee. "Multi-octave 200 MHz to 20 GHz amplifier for extended range digital log video amplifier application." 2000 MTT-S International Microwave Symposium Digest 00.3 (2000 Vol. III [MWSYM]): 1329-1332.

This paper presents the design of a low-cost multi-octave 200 MHz to 20 GHz compact single-stage feedback amplifier employing a PHEMT device for an extended range digital log video amplifier (ERDLVA) application. The amplifier design realized exhibited a gain level of 7.84/spl plusmn/0.5 dB, input/output VSWRs better than 10 dB, and noise figure less than 4 dB. Moreover, the amplifier exhibited a twofold power added efficiency improvement when compared to a conventional travelling wave amplifier design employing the same active devices.

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