Abstracts

Design and Performance of a New Multi-Octave High-Gain Amplifier

K.B. Niclas, R.R. Pereira, A.J. Graven and A.P. Chang. "Design and Performance of a New Multi-Octave High-Gain Amplifier." 1987 MTT-S International Microwave Symposium Digest 87.2 (1987 Vol. II [MWSYM]): 829-832.

Experimental results obtained from a number of typical representatives of a new type of amplifier are discussed. Gains of G = 16.3 +/- 0.9 dB at a maximum reflection loss of RL = -11. 3 dB between 2.3 GHz and 20.3 GHz and G = 18.3 +/- 1.1 dB between 2.5 GHz and 18 GHz were achieved in single stage units. The maximum noise figures of the respective modules are F = 6.6 dB and F = 6.3 dB from 2.5 GHz to 18 GHz. A two-stage amplifier yielded G = 33 +/- 1.0 dB and RL = -10.0 dB from 2.5 GHz to 20.5 GHz with a maximum noise figure of F = 7.1 dB across the 2.0 - 18.0 GHz frequency band.

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