Abstracts

Fine Grain Spectrum Analysis of Pulsed Microwave Amplifiers (Nov. 1962 [T-MTT])

R.F. Koontz. "Fine Grain Spectrum Analysis of Pulsed Microwave Amplifiers (Nov. 1962 [T-MTT])." 1962 Transactions on Microwave Theory and Techniques 10.6 (Nov. 1962 [T-MTT]): 440-453.

With the advent of microwave transmitter systems requiring high spectral purity, it has become important to control the interline noise and modulation products in the fine grain spectrum of CW or pulsed microwave amplifiers. Some of the causes of interline noise and modulation in high-power microwave amplifiers such as klystrons, TWT's and coaxial triodes are reviewed in this paper. A spectrum analyzer capable of resolving interline noise and modulation products in CW or pulsed microwave spectrums is described. This analyzer has a dynamic range of better than 50 db and a resolution of less than 2 cps. Some typical measurements made on transmitters operating in the UHF and L-band regions are presented.

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