Abstracts

Power Amplification for FM and PM Signals with Synchronized IMPATT Oscillators

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To meet certain requirements for system performance such as broadening the bandwidth, obtaining a high gain for the FM-and PM-signal amplifier, and increasing the power output, the "locking amplifier" composed of cascade-connected and hybrid-combined synchronizing oscillators is described. How the SNR of the amplifier is greatly improved and its gain increased by cascade connection and hybrid combination is discussed. These have been ascertained by experiments. In addition, another broad-band and high-gain synchronizing circuit and its application to pulse code modulation-phase modulation (PCM-PM) signal amplification are also discussed.

❑ Return to main document.