Abstracts

State of the Art S-Band Resistive FET Mixer Design

M.M. Radmanesh and N.A. Barakat. "State of the Art S-Band Resistive FET Mixer Design." 1994 MTT-S International Microwave Symposium Digest 94.3 (1994 Vol. III [MWSYM]): 1435-1438.

The design of an S-band resistive MESFET mixer is presented. Contrary to other types of mixers where the predominant mixing element is a nonlinear device parameter, resistive FET mixers utilize the linear resistive channel of a device as the mixing element. The intermediate frequency (IF) is extracted at the drain with adequate filtering and impedance matching. With proper termination of all three ports of the device, an overall superior mixer performance was achieved compared to the Schottky barrier diode mixer. This state-of-the-art S-band resistive FET mixer with its low noise and high dynamic range finds wide applications in the wireless TV industry.

❑ Return to main document.