Abstracts

X-Band and Ka-Band Monolithic GaAs PIN Diode Variable Attenuation Limiters (1988 [MCS])

D.J. Seymour, D.D. Heston and R.E. Lehmann. "X-Band and Ka-Band Monolithic GaAs PIN Diode Variable Attenuation Limiters (1988 [MCS])." 1988 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 88.1 (1988 [MCS]): 147-150.

Monolithic GaAs PIN diode limiter circuits have demonstrated 20 dB of variable attenuation at X- and Ka-bands while maintaining under 1.5:1 input VSWR. Insertion loss is 0.5 dB at 10 GHz and 1.4 dB at 36.5 GHz in the 0-mA bias condition. Passive limiting provides 7 dB of isolation at RF powers up to 1.5 watts (30-percent duty cycle). This paper reports this first use of monolithic GaAs PIN diode circuits in radar receivers.

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