Abstracts

X-Band Monolithic GaAs PIN Diode Variable Attenuation Limiter

D.J. Seymour, D.D. Heston, R.E. Lehmann and D. Zych. "X-Band Monolithic GaAs PIN Diode Variable Attenuation Limiter." 1990 MTT-S International Microwave Symposium Digest 90.2 (1990 Vol. II [MWSYM]): 841-844.

Monolithic GaAs PIN diode attenuator/limiter circuits have demonstrated 26 dB of variable attenuation at X-band while maintaining under 1.5 to 1 input and output voltage standing wave ratios (VSWRs). Insertion loss is 0.8 dB at 10 GHz in the 0 bias condition. Passive limiting provides 15 dB of isolation at RF input power of 2.0 W cw. These results are obtained using a vertical PIN diode process on metallorganic chemical vapor deposition (MOCVD) material.

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