Abstracts

High-performance W-band GaAs PIN diode single-pole triple-throw switch CPW MMIC

M. Case, M. Matloubian, Hsiang-Chih Sun, D. Choudhury and C. Ngo. "High-performance W-band GaAs PIN diode single-pole triple-throw switch CPW MMIC." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 1047-1051.

We present the device technology, design techniques, and circuit performance of a W-band single-pole triple-throw switch implemented in a coplanar waveguide (CPW) GaAs PIN diode MMIC technology. This switch provides more than 20 dB isolation and less than 1.5 dB insertion loss over the 75 to 85 GHz range, and more than 16 dB isolation and less than 1.6 dB insertion loss over the entire 75 to 110 GHz band. To our knowledge, this is the first report of a W-band CPW SP3T switch with state-of-the-art performance.

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