Abstracts

W-band cascode amplifier modules for passive imaging applications

A. Tessmann, W.H. Haydl, M. Neumann and J. Rudiger. "W-band cascode amplifier modules for passive imaging applications." 2000 Microwave and Guided Wave Letters 10.5 (May 2000 [MGWL]): 189-191.

W-band amplifier modules with high gain and large bandwidth have been developed for passive imaging applications, With three cascaded waveguide modules, an average small-signal gain of 60 dB and a /spl plusmn/3 dB bandwidth of 15 GHz was achieved centered around 93 GHz. The assembled three-stage amplifier monolithic microwave integrated circuits are realized in coplanar technology for compact size and low cost. Cascode devices, based on a 0.15 /spl mu/m AlGaAs/lnGaAs/GaAs pseudomorphic high electron mobility transistor technology allow for individual gain control of the stages by varying the second gate voltage.

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