Abstracts

High-gain cascode MMICs in coplanar technology at W-band frequencies

A. Tessmann, W.H. Haydl, A. Hulsmann and M. Schlechtweg. "High-gain cascode MMICs in coplanar technology at W-band frequencies." 1998 Microwave and Guided Wave Letters 8.12 (Dec. 1998 [MGWL]): 430-431.

Compact high-gain W-band multistage amplifier MMICs have been developed in coplanar technology using 0.15 /spl mu/m AlGaAs-InGaAs-GaAs PM-HEMTs. The conventional dual-gate HEMT has been modified to include an additional interstage network between the common-source and the common-gate HEMT. The effect of stabilizing circuit elements has been investigated. A gain of 10 dB per cascode stage is obtained at 94 GHz. Multistage amplifier MMIC's with up to 40 dB gain have been realized.

❑ Return to main document.