

Session TH4E

Transmission Line, Amplifiers and Control Devices

Chairman:

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Significant advances in high performance multilayer transmission line media and devices are reported. One paper demonstrates the utility of coplanar strip in a MMIC power amplifier. A second paper describes a novel three dimensional transmission line structure employing buried stripline and microstrip. Highly compact structures with excellent adjacent line isolation suitable for VLSI are possible. The final paper in this grouping discusses a new broadband impedance transforming structure. Improved linearity is demonstrated in a series feedback amplifier that employs active feedback. The benefits of flip-chip mounting of GaAs devices are demonstrated in a paper that describes a 51 GHz front-end. Two papers in this session are devoted to MMIC control components. A low insertion loss digital FET attenuator using a novel topology is described in one of the papers. The second paper in this grouping demonstrates the effectiveness of Schottky diodes as switch elements at 77 GHz.