Session NN

Microwave Integrated Circuits

Chairman:

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Advances in fixed and electronically tunable microstrip filters are presented. One of the papers illustrates a novel approach for integrating a high-Q bandpass filter into a MIC assembly. An active bandstop notch filter based on a design that is tunable from 600MHz to 2000 MHz is described in the second paper of the session. The important subject of coplanar waveguide (CPW) filters is treated in the third filter paper with models and measured results for several CPW filter structures. Discontinuity models based on simulation of CPW discontinuities are provided.

Modeling of the physical behavior of MESFETs under optical illumination is discussed in one of the session's papers. This is an important topic since direct optical control of microwave components is assuming greater importance in modern systems. Both models and measured data are provided. The important area of multichip modules is treated in two papers in the session. One of the papers discusses the design and performance of multilayer microstrip interconnects and the second paper in the grouping provides the electrical characteristics of a novel multilayer ceramic substrate. Data for an antenna switch implemented using this technique is also presented.

The final paper of the session discusses a coupler EW front-end assembly operating from 6.8–10.7 GHz which employs 72 MMIC devices in a single housing. The assembly performs with downconversion and LO generation functions.

10:30 a.m.–12:00 p.m., Thursday, June 17, 1993
Room 216/217