

Session V

MMIC Circuits and Techniques

Co-Chairmen:

R. Gold

Pacific Monolithics

W. C. Nichous

AT&T Bell Labs.

In this session, several new circuit topologies and techniques are presented. By using extra polyimide layers and quasi-lumped circuit techniques, very small passive couplers are shown to be feasible at K-band. Size reductions of 10x to 20x are achieved. In the second paper, novel matching circuits are used with common-drain and common-source FETs to achieve an accurate broadband 180° MMIC combiner. Again a size reduction of about 25x is achieved. The third paper demonstrates a unique implementation of a selectable-divide-ratio injection-lockable ring oscillator, which can reduce subsystem complexity. The last paper shows a unique, highly accurate fixturing scheme for the challenging problem of life testing of MMIC parts under RF drive. This life data is along the first available under RF drive.

1:30 p.m.–2:50 p.m., Monday, June 1, 1992
Ballroom B