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MONOLITHIC INTEGRATED CIRCUITS

Chairman: John R. Selin—Raytheon Company

Session Abstract: Monolithic microwave integrated circuits have shown advances in performance at higher frequencies and over wider bandwidths in a variety of applications. Traditional implanted MESFET technology has been used in power amplifiers in one case to reach 2 watts of output at 30 GHz, and in another to show improved wideband efficiency in the 6 to 18 GHz band. New technologies have been implemented in monolithic form to demonstrate a 16-throw switch with monolithic GaAs PIN diodes. The design technology has also contributed to the improvements. Monolithic switch circuits have been configured with reduced sensitivity to control signal ripple. Matching theory has been applied to amplifier design for a 1 to 20 GHz monolithic amplifier chip as an alternative to the distributed amplifier configuration traditionally used for broadband applications.

4:00 p.m.–5:30 p.m., Thursday, June 15, 1989
Terrace Theater