Abstracts

Computer-Aided Design Techniques for Microwave Monolithic Integrated Circuits

A.K. Sharma, H. Wang, N. Ton, M. Aust, J. Yonaki, J. Shioli, S. Dow, D. Yang and L.C.T. Liu. "Computer-Aided Design Techniques for Microwave Monolithic Integrated Circuits." 1990 MTT-S International Microwave Symposium Digest 90.1 (1990 Vol. I [MWSYM]): 555-558.

Thoroughly defined models of active devices that represent actual behavior, and passive structures which include parasitic effects are developed using analytical and experimental techniques. The enhanced simulations tools which incorporate them are then used in the design of MMICs. Theoretical and experimental correlation of several MMIC amplifier and mixer circuits designed to date are presented. The success of these chips is established by demonstrating a close relationship between the "designed" and "fabricated" circuits. The design techniques presented in this paper can be utilized in achieving first-pass success, and consequent 3 to 1 reduction in chip cost by minimizing the design risk.

❑ Return to main document.