Abstracts

High-accuracy digital 5-bit 0.8-2 GHz MMIC RF attenuator for cellular phones

N. Kinayman, M. Bonilla, M.F. Kelcourse, J. Redus and K. Anderson. "High-accuracy digital 5-bit 0.8-2 GHz MMIC RF attenuator for cellular phones." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 2231-2234 vol.3.

High-accuracy digital MMIC RF attenuator for cellular phones is presented. Designing high accuracy digital MMIC RF attenuators is challenging due to the non-ideal characteristics of the transistor switches used in the attenuator and other parasitic effects. This problem can be circumvented by simultaneous optimization of the attenuator circuit at every possible input bit configuration. Without this optimization scheme, it would be extremely difficult to compensate the non-ideal transistor switch characteristics to achieve high accuracy. A design methodology is presented.

❑ Return to main document.