Abstracts

Surface-Mounted GaAs Active Splitter and Attenuator MMIC's Used in a 1-10-GHz Leveling Loop

G.S. Barta, K.E. Jones, G.C. Herrick and E.W. Strid. "Surface-Mounted GaAs Active Splitter and Attenuator MMIC's Used in a 1-10-GHz Leveling Loop." 1986 Transactions on Microwave Theory and Techniques 34.12 (Dec. 1986 [T-MTT] (1986 Symposium Issue)): 1569-1575.

A wide-band monolithic GaAs bridge-T variable attenuator has been used with a monolithic GaAs active power splitter to form a compact 1-10-GHz leveling loop having a minimum 9-dB leveling range with buffered output. The attenuator internally optimizes input and output return loss over a 1-10-GHz bandwidth by the use of an on-chip GaAs op-amp. The active power splitter provides unity gain to each port over a 1-10-GHz bandwidth by the use of distributed amplification. The entire 4.5-cm by 4.2-cm subsystem was realized with surface mount packages on RT-Duroid®, demonstrating new construction techniques for GaAs MMIC assembly.

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