Abstracts

A 2 to 8 GHz Leveling Loop Using a GaAs MMIC Active Splitter and Attenuator

G.S. Barta, K.E. Jones, G.C. Herrick and E.W. Strid. "A 2 to 8 GHz Leveling Loop Using a GaAs MMIC Active Splitter and Attenuator." 1986 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 86.1 (1986 [MCS]): 75-79.

A wide-band monolithic GaAs bridged-T variable attenuator has been used with a monolithic GaAs active power splitter to form a compact, 2 to 8 GHz leveling loop for RF sources having a minimum 12dB leveling range with buffered output. The attenuator internally optimizes input and output return loss over a 1 to 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 to 10 GHz bandwidth by the use of distributed amplification. The entire 4.5 cm by 42 cm subsystem was realized with surface mount packages on RT-Duroid®.

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