

Abstracts

Millimeter-Wave Hybrid Coupled Reflection Amplifiers and Multiplexer

D. Rubin. "Millimeter-Wave Hybrid Coupled Reflection Amplifiers and Multiplexer." 1982 Transactions on Microwave Theory and Techniques 30.12 (Dec. 1982 [T-MTT] (1982 Symposium Issue)): 2156-2162.

Multiple stage hybrid coupled reflection amplifiers and frequency multipliers are modeled using two-port analysis. A two-stage (4 diode) microstrip InP Gunn amplifier and a four-section suspended substrate multiplexer were fabricated in Ka band. Analysis shows that the performance of the hybrid coupled amplifier, both for packaged diodes and pure negative resistance (ideal monolithic) devices, is extremely sensitive to input and output VSWR's.

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