Abstracts

GaAs Monolithic DC-6.4-GHz Variable-Gain Feedback Amplifier (Short Papers)

M. Shigaki, S. Yokogawa, H. Kurihara and K. Yamada. "GaAs Monolithic DC-6.4-GHz Variable-Gain Feedback Amplifier (Short Papers)." 1987 Transactions on Microwave Theory and Techniques 35.10 (Oct. 1987 [T-MTT]): 923-925.

A GaAs dc-6.4-GHz variable-gain two-stage feedback amplifier with 11 dB gain has been developed. The wide bandwidth is achieved by combining a microwave matching circuit with a direct-coupled circuit. This design improves the bandwidth significantly. This circuit also has a reduced chip size. Since no interstage capacitor is necessary, the chip size is only 0.5 x 1.5 mm^2. Active resistance was used in the second stage feedback circuit for variable gain. Au/ WSi self-alignment technology with a 1-µm gate length was used to improve the high-frequency characteristics of the FET.

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