Abstracts

GaAs MESFET Baseband-to-Microwave Passive Switches (Comments and Reply)

R.J. Gutmann, N. Jain, M. Schindler, M. Miller and K. Simon. "GaAs MESFET Baseband-to-Microwave Passive Switches (Comments and Reply)." 1989 Transactions on Microwave Theory and Techniques 37.7 (Jul. 1989 [T-MTT]): 1154-1155.

In two recent publications on broad-band passive GaAs MESFET switches, Schindler and colleagues presented the low-power, low-frequency characteristics of these useful components. While complete characteristics were presented over the microwave spectrum, power-handling capability was not presented below 3 GHz. This letter emphasizes that the power-handling capability, as well as related nonlinearities such as total harmonic distortion, degrades significantly at lower frequencies in previously reported GaAs MESFET switches, and we expect similar characteristics in these recently reported switches as well. While this power-handling reduction is not significant for most RF and microwave users, there are negative implications for broad-band, baseband applications such as instrumentation and signal processing.

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