Abstracts

Ultra-compact 1 W GaAs SPDT switch IC

T. Yamaguchi, T. Sawai, M. Nishida and M. Sawada. "Ultra-compact 1 W GaAs SPDT switch IC." 1999 MTT-S International Microwave Symposium Digest 99.1 (1999 Vol. I [MWSYM]): 315-318 vol.1.

An ultra-compact 1 W GaAs SPDT switch IC operating at +3/0 V is demonstrated. The switch IC consists of multi-gate FETs in which multiple gate electrodes are arranged between source and drain electrodes. By optimizing device parameters, the chip size has been reduced to 1.1 mm/spl times/0.55 mm. Also, the N/sup +/ regions in the FET are connected by fine high-resistance elements to provide a uniform electric potential between gate electrodes. As a result, the linearity of the output power is improved 1 dB at a frequency of 0.9 GHz.

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