Abstracts

Novel High Performance SPDT Power Switches Using Multi-Gate FET's

F. McGrath, C. Varmazis, C. Kermarrec and R. Pratt. "Novel High Performance SPDT Power Switches Using Multi-Gate FET's." 1991 MTT-S International Microwave Symposium Digest 91.2 (1991 Vol. II [MWSYM]): 839-842.

The development of a 16 watt SPDT MESFET based switch is presented. The switch is unique in its use of a multi-gate FET device which can be fabricated on a standard production switch process. The power handling is 9 times that of a single FET while occupying only 30% more die area. The device's bandwidth is comparable to a single FET while insertion loss is minimized using a novel N-plus (N+) intergate layer. A switch using the multi-gate device has achieved 0.4dB insertion loss and 40dB of isolation at L-Band.

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