Abstracts

A High Performance V-Band Monolithic FET Transmit-Receive Switch

G.L. Lan, D.L. Dunn, J.C. Chen, C.K. Pao and D.C. Wang. "A High Performance V-Band Monolithic FET Transmit-Receive Switch." 1988 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 88.1 (1988 [MCS]): 99-102.

A state-of-the-art performance has been achieved for a monolithic V-band GaAs FET switch. The insertion loss for the switch-on path is less than 1.5 dB across 2 GHz bandwidth (59 to 61 GHz) and is less than 3.2 dB across 8 GHz bandwidth (56 to 64 GHz). The isolation, switch-off, is greater than 25 dB across 2 GHz bandwidth (59 to 61 GHz) and is greater than 23 dB across 8 GHz bandwidth (56 to 64 GHz). The monolithic FET switch circuit has also demonstrated a switching speed of less than 1 nanosecond and RF power handling capability in excess of 450 mW.

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