

Abstracts

DC-40 GHz and 20-40 GHz MMIC SPDT Switches (1987 [MCS])

M.J. Schindler and A.M. Morris. "DC-40 GHz and 20-40 GHz MMIC SPDT Switches (1987 [MCS])." 1987 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 87.1 (1987 [MCS]): 85-88.

Monolithic GaAs SPDT switches operating from dc to 40 GHz and 20 to 40 GHz have been demonstrated. The switches use MESFETs with the same characteristics as a mm-wave amplifier to allow for ease of integration in the future. The gate length is 0.35 microns, and ion implanted material is used. The 20-40 GHz switch uses a combination of shunt FETs and quarter-wave transformers. Better than 2 dB insertion loss and 25 dB isolation have been achieved. The dc-40 GHz switch uses a combination of series and shunt FETs. Better than 3 dB insertion loss and 23 dB isolation have been achieved. Power handling and switching speed have also been measured for both switch types.

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