Abstracts

MMIC-compatible terminal protection device

R. Kaul, J. McAdoo, W.M. Bollen and W. Catoe. "MMIC-compatible terminal protection device." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1679-1682.

A low-cost terminal protection device (TPD) employing only five components has been demonstrated that is compatible with monolithic microwave integrated circuits (MMICs) and suitable for phased-array applications. Using a standard low-noise, depletion-mode MESFET (metal semiconductor field-effect transistor) across a 50-/spl Omega/ line, the TPD achieves a small-signal insertion loss less than 1 dB up to 3 GHz. With a single stage, the TPD attenuated 20-W pulses by 14 dB and 500-W pulses by 23 dB. Spike leakage was less than 0.1 /spl mu/J.

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