

# Abstracts

## A GaAs MMIC PIN Diode Receiver Protector with Switchable Attenuator

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*E.C. Niehenke, P.A. Stenger and J.E. Degenford. "A GaAs MMIC PIN Diode Receiver Protector with Switchable Attenuator." 1996 MTT-S International Microwave Symposium Digest 96.3 (1996 Vol. III [MWSYM]): 1589-1592.*

Design and performance of a unique X-band GaAs MMIC PIN diode receiver protector (RP) with switchable attenuator is described with a maximum average and peak leakage levels of 17 dBm and 20 dBm respectively. The fast acting 8 diode RP requires no external biasing and exhibits a recovery time of 50 ns. The MMIC includes a switchable 13 dB attenuator after the RP. Two RP/Attenuator circuits for balanced operation are included in a 120 by 150 by 6 mil MMIC which exhibits only 0.55 to 0.7 dB loss, and a return loss of 15 to 30 dB over an octave bandwidth.

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