

## Microstrip Devices for Millimetric Frequencies

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*M.J. Sisson, P.M. Bragginshaw, P.N. Wood, P.R. Brown, A.M. Hansom and M.R. Nicholls.  
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A new generation of glass reinforced low capacitance beam lead mixer and PIN diodes has been developed for use at millimetric frequencies. In microstrip circuitry the gallium arsenide mixer diodes display typical conversion losses of 6.5 dB (single ended) and 7.0 dB (balanced) at 94 GHz, and 7.5 dB (single ended) at 140 GHz. A microstrip PIN switch produces greater than 30 dB isolation at 90 GHz with an insertion loss of 1 dB per diode pair.

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