

# Abstracts

## W-Band Crossbar Mixers Integrated Entirely on a Single-Sided Substrate Yielding 15 GHz Instantaneous Bandwidth

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*S. Low. "W-Band Crossbar Mixers Integrated Entirely on a Single-Sided Substrate Yielding 15 GHz Instantaneous Bandwidth." 1987 MTT-S International Microwave Symposium Digest 87.2 (1987 Vol. II [MWSYM]): 595-597.*

Broadband millimeter-wave crossbar mixers using commercially available GaAs beamlead diodes and integrated circuit technology are described. The entire integrated mixer circuit is printed on the same substrate surface allowing for future extension to MMIC form. Measured performance of a compact single balanced mixer at 100 GHz shows an instantaneous 15 GHz RF and IF bandwidth and a conversion loss of 7 dB. This design is most suitable for future ESM receivers.

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