

Abstracts

Low Conversion Loss Millimeter Wave Mixers

L.E. Dickens. "Low Conversion Loss Millimeter Wave Mixers." 1973 G-MTT International Microwave Symposium Digest of Technical Papers 73.1 (1973 [MWSYM]): 66-68.

To be reported in this paper are new results obtained for mixers in the frequency range up to 95 GHz. Both frequency diplexer types of mixers and those which utilize a standard directional coupler for LO injection will be discussed. The mixers use a replaceable wafer type diode holder. The replaceable wafer contains a unique Westinghouse developed double diode structure which results in very low RF losses. The diode is a GaAs Schottky barrier with zero bias frequency cut-off of over 800 GHz. Theoretically predicted values of conversion loss under 5.0 dB are attained over the frequency range.

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