Abstracts

Results, Potentials, and Limitations of Josephson-Mixer Receivers at Millimeter and Long Submillimeter Wavelengths

J. Edrich, D.B. Sullivan and D.G. McDonald. "Results, Potentials, and Limitations of Josephson-Mixer Receivers at Millimeter and Long Submillimeter Wavelengths." 1977 Transactions on Microwave Theory and Techniques 25.6 (Jun. 1977 [T-MTT] (Special Issue on the Proceedings of the Second International Conference on Submillimeter Waves and Their Applications)): 476-479.

Millimeter-wave mixers using Josephson point contacts are described, which exhibit a conversion loss L/sub c/ = 9.5 dB and a noise temperature T ~ 223 K for lambda >or= 0.95 mm. Their potentials and limitations in noise, bandwidth, drive power, and stability for receiver applications are discussed.

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