

Abstracts

50 years development of the microwave mixer for heterodyne reception

T.H. Oxley. "50 years development of the microwave mixer for heterodyne reception." 2002 *Transactions on Microwave Theory and Techniques* 50.3 (Mar. 2002 [T-MTT] (50th Anniversary Issue)): 867-876.

A brief technical historical review of mixer development, in its application as the frequency down-converter for the microwave and millimeter-wave heterodyne receiver, provides the background to discussion of mixer design, technology, and performance characteristics. In general terms, today's mixers designs are based on the 1970s principles, but technology progress in the solid-state frequency-mixing element and associated integrated circuits has been significant, with exploitation of the monolithic potential. Performance advancements have mainly been in the increased frequency capabilities of the planar Schottky barrier diode mixer, broad application of the three terminal devices, and balun implementation.

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