

Abstracts

An Experimental Broad-Band Helix Traveling-Wave Amplifier for Millimeter Wavelengths

S.D. Robertson. "An Experimental Broad-Band Helix Traveling-Wave Amplifier for Millimeter Wavelengths." 1954 *Transactions on Microwave Theory and Techniques* 2.3 (Sep. 1954 [T-MTT]): 48-53.

This paper considers a number of problems which have been encountered and solved in the design and construction of an experimental millimeter-wave amplifier using a microscopic helix only 0.015" in diameter. Amplifications of as much as 19 db have been obtained at a wavelength of 6 millimeters, and amplifications of 9 db have been measured at wavelengths as short as 5.2 millimeters.

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