

Abstracts

A Parallel-Strip Point-Contact Diode Mount for Video Detection of Millimeter Waves (Correspondence)

M.A. Gerdine and F.S. Barnes. "A Parallel-Strip Point-Contact Diode Mount for Video Detection of Millimeter Waves (Correspondence)." 1966 Transactions on Microwave Theory and Techniques 14.1 (Jan. 1966 [T-MTT]): 41-42.

This correspondence presents measurements of the performance of an experimental parallel-strip transmission line mount for point-contact diodes (see Fig. 1). These results are an extension of work reported previously. The mount has been used with tunnel-diode, back diode, and ordinary diode detectors at wavelengths of 3.3, 2.1, and 0.84 mm. The sensitivities of the diodes in the new mount compare favorably with reported results for in-line waveguide diodes. As the signal wavelength decreases, the fabrication of waveguide diode mounts becomes increasingly difficult; therefore, the parallel-strip mount does effect some construction and experimental advantages over such waveguide structures. A detailed description of the parallel-strip mount is given in Gerdine and Barnes.

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