Abstracts

The Feasibility of Locating Waveguide Arcs by Sound Ranging (Correspondence)

A. Browne. "The Feasibility of Locating Waveguide Arcs by Sound Ranging (Correspondence)." 1968 Transactions on Microwave Theory and Techniques 16.10 (Oct. 1968 [T-MTT]): 894-894.

In a high-power microwave system (particularly a CW or long-pulse system), it often becomes necessary to protect the transmitter from the damaging effects of RF breakdown in the waveguide. The onset of RF breakdown may be detected by optical detectors or by an increase in the reflected RF signal. Fast switches can be arranged to turn off the transmitter in a time of the order of a microsecond. Under these conditions, it becomes difficult to determine the location of the breakdown. This correspondence describes an experiment to test the feasibility of locating the arc by measuring the time delay required for the sound from the arc to reach a microphone placed at some point in the waveguide.

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