

Abstracts

A Possible Method of Generating Submillimeter Wave (Correspondence)

A.F. Rashid. "A Possible Method of Generating Submillimeter Wave (Correspondence)." 1964 Transactions on Microwave Theory and Techniques 12.3 (May 1964 [T-MTT]): 384-384.

For the last few years there has been considerable effort to generate, transmit and detect ultramicrowave energy. This effort has yielded substantial progress, but as yet, there has been no break through on the problem. In this brief communication, we would like to introduce a possible method of microwave frequency multiplication. Consider a microwave signal of frequency ω which is made to propagate through a medium whose dielectric constant is a prescribed function of time. The electromagnetic wave interacts with this variable dielectric constant in such a way that its frequency at the output of the medium is A/ω where A is the frequency multiplication factor of the medium.

 [Return to main document.](#)