

Abstracts

Analysis of a Transmission Cavity Wavemeter

L. Young. "Analysis of a Transmission Cavity Wavemeter." 1960 Transactions on Microwave Theory and Techniques 8.4 (Jul. 1960 [T-MTT]): 436-439.

A section of transmission line partially closed off at each end constitutes a cavity wavemeter. If fixed in length, it may be used as a reference cavity; or if tunable, it maybe used to determine frequency. Such a cavity is here treated systematically as a lossy transmission line, with the two end couplings either lossless or symmetrical. The analysis is by means of the transfer or wave matrix. Various expressions are derived which have previously not been obtained, or for which only approximate expressions have been derived from "equivalent circuits."

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