Abstracts

Parametric Diodes in a Maser Phase-Locked Frequency Divider

M.L. Stitch, N.O. Robinson, Jr. and W. Silvey. "Parametric Diodes in a Maser Phase-Locked Frequency Divider." 1960 Transactions on Microwave Theory and Techniques 8.2 (Mar. 1960 [T-MTT]): 218-221.

The use of an ammonia-beam maser in a portable frequency standard requires a frequency divider which can be transistorized. A divider which uses no microwave tubes and hence one that can be transistorized is described. An ammonia-maser-controlled signal generator used to tuneup the divider is also described. It is found that the use of a parametric diode frequency multiplier substantially improves the lock-in performance of the divider. Some data are given for comparing the performance of the maser frequency divider with and without the parametric diode frequency multiplier.

❑ Return to main document.