Abstracts

Electronically Variable Low-Dispersion YIG Delay Line (Correspondence)

R.A. Moore and G.J. Moussally. "Electronically Variable Low-Dispersion YIG Delay Line (Correspondence)." 1971 Transactions on Microwave Theory and Techniques 19.3 (Mar. 1971 [T-MTT]): 334-337.

A low dispersion YIG line was reported by Kirchner, Olson, and Bennet for which the delay was mechanically variable. A low dispersion YIG line, for which the delay is electronically variable, is described. A brief analysis is presented which determines the required magnetic field gradient needed to achieve objective dispersion characteristics. Approaches toward achieving the required field gradient are described. The resulting dispersion, almost constant and less than one-third of the typical dispersion for larger delays, is compared in detail with typical YIG line dispersion characteristics.

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