Abstracts

Techniques for Providing TWM's with Wide Instantaneous Bandwidths

The paramagnetic material in a conventional TWM is uniformly distributed in a slow-wave structure located in a homogeneous DC magnetic field. The spin distribution-function has a Lorentzian shape which constitutes a fixed relationship between Gain (db) and 3 db bandwidth, namely, B/sub 3/ = B/sub m/ /spl radic/ 3/G/sub db/-3//. By applying an inhomogeneous DC magnetic field, we can overcome this limitation and make gain and bandwidth both independent variables.

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