

Numerically determining the dispersion relations of nonlinear TE slab-guided waves in non-Kerr-like media

Jian-Guo Ma and Zhizhang Chen. "Numerically determining the dispersion relations of nonlinear TE slab-guided waves in non-Kerr-like media." 1997 Transactions on Microwave Theory and Techniques 45.7 (Jul. 1997 [T-MTT]): 1113-1117.

Dispersion relations are calculated numerically for nonlinear slab guides with a nonlinear core and linear claddings by using the transfer matrix method (TMM). The core can have any nonlinearities while high computation efficiency can still be achieved. As a result, a simple numerical calculation tool without spurious roots is presented for general nonlinear slab-guided structures.

 [Return to main document.](#)