

Abstracts

Improved Selectivity in Cylindrical TE₀₁₁/Filters by TE₂₁₁/TE₃₁₁ Mode Control

D.E. Kreinheder and T.D. Lingren. "Improved Selectivity in Cylindrical TE₀₁₁/ Filters by TE₂₁₁/TE₃₁₁ Mode Control." 1982 MTT-S International Microwave Symposium Digest 82.1 (1982 [MWSYM]): 396-398.

A new method is presented for the design of low loss cylindrical TE₀₁₁ mode resonators whereby transmission nulls can be placed near the TE₀₁₁ resonance by controlling the TE₂₁₁ and TE₃₁₁ modes that are naturally excited in the same resonator. The frequency of the nulls are controlled by the angular offset of the sidewall coupling apertures and the relative amplitude of the TE₀₁₁ mode compared with the TE₂₁₁ and TE₃₁₁ modes. It is also shown that a lumped constant circuit model can be used to accurately represent the multimode response of the resonator.

[Return to main document.](#)