Abstracts

Dielectric High-Power Bandpass Filter Using Quarter-Cut TE/sub 01delta/ Image Resonator for Cellular Base Stations (Dec. 1987 [T-MTT])

T. Nishikawa, K. Wakino, K. Tsunoda and Y. Ishikawa. "Dielectric High-Power Bandpass Filter Using Quarter-Cut TE/sub 01delta/ Image Resonator for Cellular Base Stations (Dec. 1987 [T-MTT])." 1987 Transactions on Microwave Theory and Techniques 35.12 (Dec. 1987 [T-MTT] (1987 Symposium Issue)): 1150-1155.

A dielectric high-power bandpass filter using "quarter-cut TE/sub 01delta/ image resonators" has been developed. The resonator has a high unloaded Q over 7000 and its construction provides a sufficient thermal diffusion path to the metal housing. The insertion loss and the attenuation level of the eight-pole elliptic function type filter are 0.37 dB and 95 dB, respectively. The physical size of the dielectric filter is 280x135x 65 mm, one third to one fifth the volume of conventional cavity resonator filters.

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