

Dual Mode Dielectric Resonator Filters without Iris

K.A. Zaki, C. Chen and A.E. Atia. "Dual Mode Dielectric Resonator Filters without Iris." 1987 MTT-S International Microwave Symposium Digest 87.1 (1987 Vol. I [MWSYM]): 141-144.

Two filter realizations using dual mode dielectric resonators in a simple tubular enclosure are described. The new configurations do not require iris to achieve the coupling among the resonators; thus eliminating expensively machined parts with tight tolerances. They also achieve lower midband insertion loss than comparable filters with iris, because conduction currents on the cavity ends are eliminated. Measured results on two 4-pole elliptic function experimental filters realized in the new structures agreed closely with theory.

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