Abstracts

The Q-Factor of Coaxial Resonators Partially Loaded with High Dielectric Constant Microwave Ceramics (Short Papers)

S. Yamashita and M. Makimoto. "The Q-Factor of Coaxial Resonators Partially Loaded with High Dielectric Constant Microwave Ceramics (Short Papers)." 1983 Transactions on Microwave Theory and Techniques 31.6 (Jun. 1983 [T-MTT]): 485-488.

The quality factor of partially loaded dielectric coaxial stepped impedance resonatop (PDSIR) has been analyzed, including analysis of the dielectric constant epsilon/sub r/ and the dielectric loss tan delta of the ceramics. The Q-factor of several resonators is also calculated and compared with the experimental results. This shows that the Q-factor degradation lessens even though the resonator length becomes small when the total length L/sub t/>1//spl radic/epsilon/sub r/ and becomes large when L/sub t/ < 1//spl radic/epsilon/sub r/.

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