

Abstracts

A Novel Technique for Tuning Dielectric Resonators

K.V. Buer and E.-B. El-Sharawy. "A Novel Technique for Tuning Dielectric Resonators." 1995 Transactions on Microwave Theory and Techniques 43.1 (Jan. 1995 [T-MTT]): 36-41.

This paper presents a novel technique for the tuning of high dielectric resonators at microwave and millimeter wave frequencies. The resonator is tuned by coupling it to a section of non-resonant microstrip line. An experimental band-reject filter with a Q of 550 was tuned using this technique. The resulting tuning range of the filter was over 18 times its bandwidth. This technique makes it cost effective to tune dielectric resonators over a relatively broad range while maintaining a high Q characteristic.

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