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(54) Title: HIGH-Q MULTI-MODE DIELECTRIC RESONANCE STRUCTURE, AND DIELECTRIC FILTER

(54) 发明名称: 一种高Q多模介质谐振结构和介质滤波器

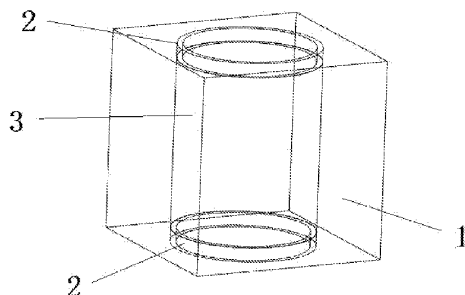


图 1

(57) Abstract: Disclosed are a high-Q multi-mode dielectric resonance structure and a dielectric filter. The dielectric resonance structure comprises a cavity, a dielectric supporting frame, dielectric resonators and a cover plate, wherein the cavity is formed as a sealed space, one surface of the cavity is a cover plate surface, and the dielectric resonators are composed of dielectrics; and the dielectric supporting frame is mounted at any position between the dielectric resonators and an inner wall of the cavity, matches any shape of the dielectric resonators and of the cavity and is fixedly connected to the dielectric resonators and the cavity, and the ratios of the size of the inner wall of the cavity to the corresponding sizes of the three axially corresponding dielectric resonators is between 1.01 and 4.5. By means of the embodiments of the present invention, the solutions of a small size, a low insertion loss and high suppression of a filter can be achieved, and same can be formed such that same has multiple modes, and the Q value is greater than that of traditional dielectric multi-mode technology.

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本国际公布:

— 包括国际检索报告 (条约第21条(3))。

(57) 摘要: 本发明实施例公开了一种高Q多模介质谐振结构和介质滤波器, 其包括空腔、介质支撑架、介质谐振器和盖板, 所述空腔为密封的空间构成, 其中空腔的一个面为盖板面; 所述介质谐振器由介质构成; 所述介质支撑架安装在介质谐振器和空腔的内壁之间的任意位置并且匹配介质谐振器和空腔任意形状并连接固定, 所述空腔内壁尺寸与其三个轴向对应的介质谐振器相对应尺寸纸币为1.01-4.5之间。本发明实施例能够解决滤波器小体积、低插损、高抑制的方案, 且能形成多模, Q值大于传统介质多模技术。