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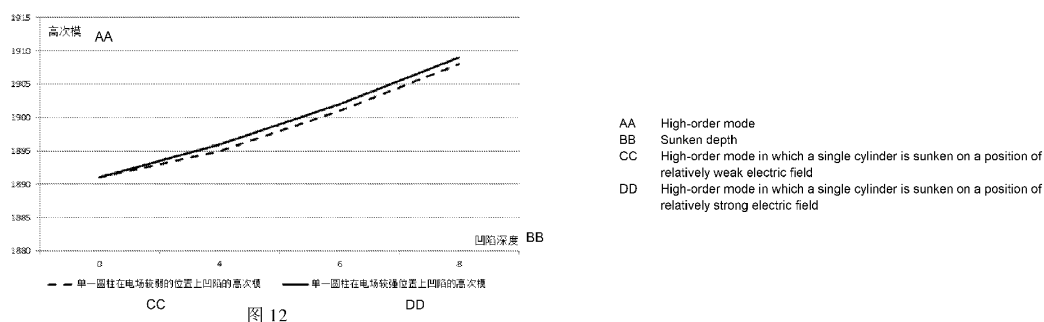
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(54) Title: RESONANCE STRUCTURE FOR CONTROLLING HARMONIC DISTANCE AND DIELECTRIC FILTER

(54) 发明名称: 一种控制谐波远近的谐振结构及介质滤波器



(57) Abstract: Disclosed in the present application is a dielectric resonance structure for controlling a harmonic distance, comprising a cavity, a support frame, a dielectric resonator and a cover plate; the cavity is composed of a sealed space, wherein one surface of the cavity is a cover plate surface; the dielectric resonator is composed of a dielectric and is installed in the cavity; and the support frame is installed at any position between the dielectric resonator and the inner wall of the cavity, matches the dielectric resonator and the cavity in any shape, and connects and fixedly supports the dielectric resonator. The dielectric resonator is partially provided with a blind groove, a through groove, a blind hole and a through hole, or is provided with a protrusion in the surface thereof, to change a frequency interval between a fundamental mode and a high-order mode or between a high-order mode and a higher-order mode. When the set materials and sizes of the cavity, the dielectric resonator and the support frame are unchanged, most filters require the frequency of the high-order mode to be as far away as possible from a passband to reduce the interference on a main passband. The dielectric resonator of the present application can easily control the harmonic distance of the filter and flexibly change the suppression performance outside the passband.

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ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
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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: 本申请控制谐波远近的介质谐振结构, 包括空腔、支撑架、介质谐振器和盖板; 空腔为密封的空间构成, 其中空腔的一个面为盖板面; 介质谐振器由介质构成; 介质谐振器安装在空腔中, 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支撑该介质谐振器。介质谐振器的局部设置有盲槽、通槽、盲孔、通孔或在其表面设置凸起改变其基模与高次模或高次模与更高次模之间的频率间隔。在设定的空腔、介质谐振器、支撑架的材料和尺寸不变时, 大多数滤波器要求高次模的频率尽量远离通带, 减少对主通带的干扰。本申请之介质谐振器具有便于控制滤波器谐波远近、灵活改变通带外的抑制性能。