

Title of Invention: Bulk Acoustic Wave Resonator and Manufacturing method Thereof**Abstract**

The present disclosure provides a bulk acoustic wave resonator and a manufacturing method thereof, and relates to the technical field of resonators. The bulk acoustic wave resonator includes a substrate, and a lower conductive layer, a piezoelectric layer and an upper conductive layer, which are sequentially disposed on the substrate in a stacked manner, wherein the lower conductive layer, the piezoelectric layer and the upper conductive layer have an overlapping region in a stacking direction, a first cavity located between the upper conductive layer and the piezoelectric layer is disposed outside the overlapping region, a plurality of first support columns are disposed inside the first cavity, the plurality of first support columns are supported between the piezoelectric layer and the upper conductive layer, the plurality of first support columns divide the first cavity into a plurality of through holes.

Fig. 1