Abstract

MEMS Structure-Based Adjustable Capacitor

An MEMS structure-based adjustable capacitor is provided, comprising: a lower plate A, a movable plate B, an upper plate C, a fixed apparatus D and one or more ~~connecting wire conductors~~connecting conductors E; a lower end of the fixed apparatus D is fixedly connected to the lower plate A, an upper end of the fixed apparatus D is fixedly connected to the upper plate C, a structure B4 ~~which is able to move freely in parallel in cooperation with the fixed apparatus D~~ is provided at a middle part of movable plate B~~, the movable plate B is fixed at a middle part of the fixed apparatus D by means of the structure B4~~, and the movable plate B is able to move up and down along the fixed apparatus D; the lower plate A is provided with a lower electrode A1, and the movable plate B is provided with a movable electrode B1 and adjustment electrodes B2; the lower electrode A1 and the movable electrode B1 constitute a unit capacitor; and the upper plate C is provided with an upper electrode C1 and adjustment electrodes C2. ~~The adjustable capacitor not only has a high Q value, but also has high voltage withstand and current withstand capabilities.~~

Figure 1