

A CONFIGURABLE MICROMECHANICAL DIFFRACTIVE ELEMENT WITH ANTI STICTION BUMPS

ABSTRACT

The invention relates to a micromechanical unit, in particular, an adjustable optical filter, and also a method to manufacture the unit. The unit comprises a first device layer and a second substrate layer at least partially fastened to each other, where the device layer comprises a number of reflecting elements divided between a number of non movable, fixed reflecting elements, where the fixed elements are connected with the substrate, and where a cavity is defined between the substrate and each movable element and each movable element is set up to produce a spring-loaded movement into the cavity, and where a number of dielectric spacer blocks are placed in the cavities between each movable element and the substrate to avoid electric contact between them.

(Figs 1A and 1B)