

Title (en)

RF MICROSWITCH WITH TRENCH CAPACITOR

Title (de)

RF MIKROSCHALTER MIT GRABENKONDENSATOR

Title (fr)

MICRO-COMMUTATEUR RF A CAPACITE EN TRANCHÉE

Publication

EP 4330996 A2 20240306 (FR)

Application

EP 22725493 A 20220426

Priority

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- EP 2022061034 W 20220426

Abstract (en)

[origin: WO2022229173A2] The invention relates to a capacitive radiofrequency electromechanical microsystem comprising a metal membrane (10) suspended above an RF transmission line (30) covered with a stack that includes at least a first dielectric layer (31) and a metal layer (32), wherein said membrane is supported by means of two arms (20a, 20b) on ground planes above a substrate (40) and can be controlled so as to move: from a so-called high position, separating the membrane by a gap above the RF line covered with the stack and defining a first capacitor (CUP), to a so-called low position, in which the membrane is in contact with the RF line (30) via the metal layer (32) of the stack covering the RF line so as to define a second capacitor (CDOWN), characterised in that the RF line (30), the first dielectric layer (31) and the metal layer (32) have a three-dimensional structure, that is to say in relief, such as to define a three-dimensional capacitor.

IPC 8 full level

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