

Title (en)

DEVICE COMPRISING A CAPACITOR HAVING A VARYING CAPACITANCE, ESPECIALLY A HIGH- FREQUENCY MICROSWITCH

Title (de)

VORRICHTUNG MIT EINEM KONDENSATOR MIT VERÄNDERBARER KAPAZITÄT, INSBESONDERE HOCHFREQUENZ-MIKROSCHALTER

Title (fr)

DISPOSITIF DOTE D'UN CONDENSATEUR A CAPACITE VARIABLE, EN PARTICULIER COMMUTATEUR MINIATURE A HAUTE FREQUENCE

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Application

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Abstract (en)

[origin: WO02054528A1] Disclosed is a device comprising a capacitor (200) having a varying capacitance t C (U) for modifying the impedance of a section of a co-planar wave guide, which can be especially used as a high-frequency microswitch. A mass line (110, 111) and a signal line (120) interrupted by an electrically conducting connecting element (121) which is at least partially unsupported are also provided. The capacitor (200) includes the electrically conducting connecting element (212) and another electrically conducting element (130) connected to the mass line (110, 111) . A structure (150) which is connected to the electrically conducting connecting element (121) is also provided. Said structure is embodied in such a way that it reduces mechanical tensions occurring in the electrically conducting connecting element (121). In another embodiment of the inventive device, the electrically conducting connecting element (121) is made of a material having a thermal coefficient of expansion which is similar to that of silicon and a modulus of elasticity which is high in comparison with metals, especially molybdenum, tantalum or tungsten. Preferably, both embodiments are combined.

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