

Title (en)

FREQUENCY-TUNABLE MICROWAVE BANDPASS FILTER

Title (de)

FREQUENZ-VERSTELLBARER MIKROWELLENBANDPASSFILTER

Title (fr)

FILTRE MICRO-ONDE PASSE BANDE ACCORDABLE EN FREQUENCE

Publication

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Application

EP 10793260 A 20101217

Priority

- FR 0906258 A 20091222
- EP 2010070145 W 20101217

Abstract (en)

[origin: WO2011076698A1] The invention relates to a frequency-tunable microwave bandpass filter that comprises, altogether, at least the following elements: a wave guide having a rectangular cross-section and including a stationary first conductive portion I and a movable second conductive portion II. Said first portion includes a plurality of first conductive partitions (1051, 1052 and 1054, 1055) having one or more conductive obstacles related to the complementary openings Oi in the section of the guide that forms capacitive irises. Said first partitions are transversely mounted, at the propagation of the wave in the guide and defining a plurality of cavities Ki (1061, 1062) in the longitudinal direction of the guide, and are rigidly connected to the first portion I and the second conductive partitions (1053) that have one or more openings defining capacitive irises and that, in combination with the adjacent guide lengths (L3, L4), moreover form imittance inverters Ji. Said first partitions (1051, 1052 and 1054, 1055) form a series of resonating cavities Ki that are coupled by the imittance inverters Ji. A means makes it possible to ensure electrical contact between the conductive portions I and II.

IPC 8 full level

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CPC (source: EP US)

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