

Title (en)

Tunable microwave bandpass filter by relative rotation of an insert section and a dielectric element

Title (de)

Hyperfrequenz-Bandpassfilter, der durch entsprechende Drehung eines Einsatzteils und eines dielektrischen Elements anpassbar ist

Title (fr)

Filtre hyperfréquence passe bande accordable par rotation relative d'une section d'insert et d'un élément diélectrique

Publication

**EP 2887450 B1 20160727 (FR)**

Application

**EP 14198053 A 20141215**

Priority

FR 1303030 A 20131220

Abstract (en)

[origin: CA2875004A1] The invention relates to a bandpass filter for microwave-frequency wave which is frequency tunable, comprising at least one resonator (R), -each resonator comprising a cavity (30) having a conducting wall (50) substantially cylindrical in relation to an axis Z, and at least one dielectric element disposed inside the cavity, -the said resonator resonating on two perpendicular polarizations having respectively distributions of the electromagnetic field in the cavity that are deduced from one another by a rotation of 90° and according to one and the same frequency, - the wall of the cavity (50) comprising an insert section (20) facing the said element having a different shape from a section not situated facing the element, -the insert section (20) and the element being able to perform a rotation with respect to one another in relation to the axis Z so as to define at least a first (P1) and a second relative position differing by an angle substantially equal to 45° to within 20°.

IPC 8 full level

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CPC (source: EP US)

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Cited by

CN108461879A; US11342644B2; WO2019175538A1; WO2018077611A1

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