Title (en)

LC-type filter module and helical filter comprising at least two such modules

Title (de)

LC-Filtermodul und Wendelleiterfilter mit mindestens zwei solchen Modulen

Title (fr)

Module de filtre de type L-C et filtre hélicoidal composé d'au moins deux tels modules

Publication

EP 1331733 B1 20070919 (FR)

Application

EP 02360375 A 20021220

Priority

FR 0200831 A 20020123

Abstract (en)

[origin: EP1331733A1] An inductor-capacitor (L-C) type filter module comprises: (a) at least2 capacitors having elongated element made of a conductive material (I) partially fitted over a determined depth in a hole or perforation of a second element (II) also made of (I); and (b) inductors(s) having a coil carried by a support body contiguous with (II) or a dielectric coating covering an external face of each (II). An L-C type filter module comprises at least two capacitors (2, 2') and inductors(s). Each capacitor comprises a first elongated element (4, 4') made of a conductive material partially fitted, over a determined depth, in a hole or perforation (5) of a second element (6) made of the conductive material connected electrically to the second elements of the other capacitors or possibly common to the various capacitors. The internal lateral surface defining the holes or perforations are covered with a dielectric material (7), as are the edges (5') of the openings of the holes or perforations and the external surfaces of the second elements adjoining the edges. A coil (3') of each inductor (3) is carried by a support body (8) made of the dielectric material, contiguous with the second element(s) or with the dielectric coating at least partially covering an external face of each second element. An Independent claim is included for a helical filter at least of the order 2 with a module structure. The helical filter is formed by the series connection of at least two filter modules. Each module has specific filtering characteristics that can be adjusted by regulating the characteristics of the capacitor. Each various module is housed in a corresponding closed compartments of a box forming a Faraday cage, while being electromagnetically insulated from the exterior of the module(s) forming the filter.

IPC 8 full level

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