

Title (en)
Filter with temperature compensated tuning screw

Title (de)
Filter mit temperaturkompensierter Abstimmsschraube

Title (fr)
Filtre avec vis d'accord compensée en température

Publication
EP 0883203 A3 19991027 (EN)

Application
EP 98304360 A 19980602

Priority
CA 2206942 A 19970602

Abstract (en)
[origin: CA2206942C] A temperature compensated filter has a compensating screw mounted in a support in the wall of a cavity. The support is made from a material having a high coefficient of thermal expansion compared to the material of the cavity and the material of the compensating screw. As temperature changes, the support moves the compensating screw either further into the cavity or further out of the cavity to compensate for the change in resonant frequency of the cavity that would otherwise occur. The compensating screw can be used with single, dual or triple mode cavities. The compensating screw can be made of metallic material or it can be made of non-metallic material with a metallic outer surface. The compensating screw is locked in the support before the support is inserted into the wall of the cavity. The support is then locked in the wall of the cavity and the screw automatically changes position within the cavity as temperature changes. An RF barrier can be used to prevent RF energy from the cavity from entering the area of the support.

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H01P 1/208; **H01P 1/30**; **H01P 7/06**

IPC 8 full level
H01P 1/208 (2006.01); **H01P 1/30** (2006.01); **H01P 7/06** (2006.01)

CPC (source: EP)
H01P 1/208 (2013.01); **H01P 1/30** (2013.01); **H01P 7/06** (2013.01)

Citation (search report)
• [XY] US 3528042 A 19700908 - WEINBERGER AARON DAVID
• [Y] FR 2086065 A1 19711231 - MINI AVIAT SUPPLY
• [Y] EP 0691702 A2 19960110 - COM DEV LTD [CA]
• [X] GB 655392 A 19510718 - BRITISH THOMSON HOUSTON CO LTD
• [A] FR 2326077 A1 19770422 - CIT ALCATEL [FR]
• [A] PATENT ABSTRACTS OF JAPAN vol. 6, no. 259 (E - 149)<1137> 17 December 1982 (1982-12-17)

Cited by
CN103715484A; CN113131117A; CN108172954A; US9843083B2; US9614264B2; WO2016138918A1; US9325046B2; US9401537B2; US9406993B2; US9406988B2; US9437916B2; US9437910B2; US9559398B2; US9698455B2

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