

Title (en)

Pseudo-elliptic filter in the millimeter range realised in waveguide technique

Title (de)

In Wellenleitertechnologie ausgeführtes pseudoelliptisches Filter für den Millimeterbereich

Title (fr)

Filtre pseudo-elliptique dans le domaine millimétrique réalisé en technologie guide d'ondes

Publication

**EP 0779672 A1 19970618 (FR)**

Application

**EP 96402571 A 19961128**

Priority

FR 9514703 A 19951212

Abstract (en)

The filter has a number of circular resonant cavities (30,35) with coupling between them. An input waveguide leads to an input slot to the first cavity, and the cavities are connected sequentially, with input and output coupling slots at right angles between them. Two sets of cavities have waveguide slots (47,48) which provide feedback by coupling the power from a down line cavity and feeding it back into a coupling slot in a previous cavity. Coupling is provided via a magnetic field.

Abstract (fr)

L'invention concerne un filtre pseudo-elliptique comprenant des cavités résonantes (30 à 35) couplés entre eux positivement (36 à 40), l'entrée et la sortie de signal de chaque cavité (30 à 35) étant à 90° l'une de l'autre. Le filtre comprend au moins un rétro-couplage de signal entre deux de ces cavités (30, 33; 32, 35), réalisé sous forme d'un guide d'ondes (47; 48). L'invention s'applique aux filtres pseudo-elliptiques fonctionnant dans la bande millimétrique. <IMAGE>

IPC 1-7

**H01P 1/208**

IPC 8 full level

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CPC (source: EP US)

**H01P 1/208** (2013.01 - EP US); **Y10T 29/49016** (2015.01 - EP US)

Citation (applicant)

- US 4772863 A 19880920 - ROSENBERG UWE [DE], et al
- A.E. ATIA, A.E. WILLIAMS: "New types of waveguide bandpass filters for satellite transponders", COMSAT TECHNICAL REVIEW, vol. 1, no. 1, 1971
- J.A. CURTIS, S.J. FIEDZIUSKO: "Miniature dual mode microstrip filters", MTT-S DIGEST, IEEE, 1991, pages 443 - 446
- A.S. BELOV, YU.S. UKRAINTSEV: "Synthesis of Microwave Bandpass Filters with Zolotarev Characteristics", JTT TELECOMMUNICATIONS & RADIO ENG. PART 1, vol. 36, no. 3, March 1982 (1982-03-01), pages 44 - 49

Citation (search report)

- [A] US 4360793 A 19821123 - RHODES JOHN D, et al
- [A] US 2749523 A 19560605 - MILTON DISHAL
- [A] EP 0075498 A1 19830330 - THOMSON CSF [FR]
- [A] PATENT ABSTRACTS OF JAPAN vol. 8, no. 25 (E - 225)<1462> 2 February 1984 (1984-02-02)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1, no. 156 (E - 074)<8545> 13 December 1977 (1977-12-13)

Cited by

EP1187248A3

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