

Title (en)
Small-dimensioned microwave filter with linear resonators.

Title (de)
Kleindimensionierter Mikrowellenfilter mit linearen Resonatoren.

Title (fr)
Filtre hyperfréquence de petites dimensions à résonateurs linéaires.

Publication
EP 0071508 A1 19830209 (FR)

Application
EP 82401307 A 19820709

Priority
FR 8114425 A 19810724

Abstract (en)
1. A microwave filter comprising n linear hair-pin resonators (H'1 -H'5), n being a positive integer, characterized in that the length of each resonator is smaller than $\lambda/2$, λ being the wavelength corresponding to the center frequency of the filter band, and that a capacitor (C1 -C2) is branched between the open ends of each resonator, the capacitance of said capacitor being such that a resonance frequency equal to said center frequency of the filter band is obtained in the resonant circuit constituted by said capacitor and the associated resonator.

Abstract (fr)
Le filtre comporte, branchés sur ses résonateurs linéaires en U (H'1 à H'5), des condensateurs (C1 à C5) qui abaissent la fréquence moyenne de travail du filtre en dessous de la valeur correspondant, dans le filtre, à une longueur d'onde λ égale au double de la longueur des résonateurs. Il est ainsi possible de réaliser un filtre de petites dimensions et, en utilisant des condensateurs variables, de modifier l'accord du filtre. Application aux filtres passe-bande et coupe-bande.

IPC 1-7
H01P 1/203

IPC 8 full level
H01P 1/203 (2006.01); **H01P 1/212** (2006.01); **H01P 7/08** (2006.01)

CPC (source: EP)
H01P 1/20372 (2013.01)

Citation (search report)
• [Y] US 3530411 A 19700922 - SEAR BRIAN E
• [Y] US 3534301 A 19701013 - GOLEMBESKI JOHN J
• [A] FR 2265188 A1 19751017 - VARIAN ASSOCIATES [US]
• [A] US 3094664 A 19630618 - KIBLER LYNDEN U
• [A] US 3171086 A 19650223 - GERLACH HORST W A
• [A] US 3400298 A 19680903 - HANS-JOACHIM KRAHN
• [A] FR 1170722 A 19590116 - SIEMENS AG
• [Y] IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol. MTT-22, no. 5, mai 1974, pages 499-504, New York, USA

Cited by
EP0803979A3; FR2613538A1; US4731596A; US6313719B1; US5187460A; GB2164804A; GB2164804B; RU2662058C1; EP0326498A1; FR2626716A1; EP0165158A1; FR2565438A1; US7231238B2; EP0071509B1

Designated contracting state (EPC)
CH DE GB IT LI NL SE

DOCDB simple family (publication)
EP 0071508 A1 19830209; EP 0071508 B1 19870121; DE 3275253 D1 19870226; FR 2510325 A1 19830128; FR 2510325 B1 19870904; JP S5816901 U 19830202; JP S6329282 Y2 19880808

DOCDB simple family (application)
EP 82401307 A 19820709; DE 3275253 T 19820709; FR 8114425 A 19810724; JP 11159382 U 19820722