

Title (en)
COAXIAL BANDSTOP FILTER

Publication
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Application
EP 82401444 A 19820730

Priority
FR 8115763 A 19810814

Abstract (en)
[origin: EP0072729A1] 1. A microwave filter comprising a coaxial waveguide (1) which is closed at both ends, and comprising n dielectric resonators (2, 3), n being a positive integer, the resonators (2, 3) being disposed in the coaxial waveguide, being of a homogeneous structure and being fully passed through by a hole through which passes the inner conductor (10) of the coaxial waveguide, characterized in that, the filter being a band rejection filter, a mode TM₀₁₁ ensures the coupling between the guide and the resonators, that for $n > 1$, the distance between two successive resonators is about $(3/4)\lambda$, in which λ is the wavelength corresponding to the mean frequency of the band rejected by the filter, and that the filter comprises insulating means (20, 30) in order to electrically insulate the resonators from the inner (10) and outer conductors (11) of the coaxial waveguide, these means being constituted by distance pieces made of a dielectric material of low permittivity and interposed between each resonator (2, 3) and one of these two conductors (10, 11) of the coaxial waveguide (1).

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CPC (source: EP)
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Citation (examination)

- IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM DIGEST, 27-29 juin 1978, Ottawa, IEEE, 1978, PISCATAWAY (US); K.WAKINO et al.: "Miniaturized band pass filters using half wave dielectric resonators with improved spurious response", pages 230-232
- CONFERENCE PROCEEDINGS 7TH EUROPEAN MICROWAVE CONFERENCE, 5-8 septembre 1977, Copenhagen, SEVENOAKS (GB); M.W.POSPIESZALSKI: "Cylindrical dielectric resonators and their applications in TEM-line microwave circuits", pages 168-172
- IEEE TRANSACTIONS ON MTT, vol.12, no.1, janvier 1965, New York (US); B.M.SCHIFFMAN et al.: "Exact design of band-stop microwave filters", pages 6-15

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