

Title (en)
Radio-frequency resonator and filter

Title (de)
Hochfrequenzresonator und Filter

Title (fr)
Résonateur et filtre radiofréquence

Publication
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Application
EP 13196298 A 20131209

Priority
EP 13196298 A 20131209

Abstract (en)
A radio-frequency resonator comprising a plurality of coaxial line sections (CLS 1 ...CLS n) connected in cascade, each of said coaxial line sections comprising an inner conductor (C i) surrounded by an outer conductor (C i+1) of tubular shape, wherein said coaxial line sections are nested within each other, the outer conductor of each said coaxial line section, except an outermost one (C n+1), serving as the inner conductor of another one of said coaxial line sections, the resonator being characterized in that each conductor of each coaxial line section, except the outer conductor of the outermost coaxial line section, has an open-circuit end and an opposite end which is short-circuited to said outer conductor of said outermost coaxial line section, and in that said conductors of said coaxial line sections - except the outer conductor of said outermost coaxial line section - are arranged head-to-tail, their open-circuit and short-circuited ends being alternatively situated on opposite sides of the resonator. Such a resonator achieves a better tradeoff between the conflicting requirements of reduced size and good electrical performances. A radio-frequency filter comprising a plurality of such radio-frequency resonators mounted adjacent to each other and coupled by openings in the outer conductors of their respective outermost coaxial lines, forming coupling irises.

IPC 8 full level
H01P 1/205 (2006.01); **H01P 7/04** (2006.01)

CPC (source: EP)
H01P 1/2053 (2013.01); **H01P 7/04** (2013.01)

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