

Title (en)
Coaxial resonator filter

Title (de)
Filter mit koaxialen Resonatoren

Title (fr)
Filtre avec résonateurs coaxiales

Publication
EP 2894709 B1 20190501 (EN)

Application
EP 14305032 A 20140110

Priority
EP 14305032 A 20140110

Abstract (en)
[origin: EP2894709A1] A resonant assembly is disclosed. The resonator assembly, comprises: a resonator having a conductive resonance post surrounded by a conductive enclosure defining a cavity, the conductive resonance post being operable to filter a signal within a first frequency band, and a conductive resonance ring element positioned around the conductive resonance post, the conductive resonance ring element being operable to filter a signal within a second frequency band concurrently with the conductive resonance post filtering the signal within the first frequency band. Through this approach, it is possible to provide a single device which implements more than one independent resonance or filtering at the same time within the same cavity volume, allowing significantly smaller cavity filters to be built, which avoids the need to provide separate devices, one for each frequency. This is particularly convenient in resonant assemblies used in RF front ends which will often be required to receive signals at two or more different frequencies.

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