

Title (en)
A RESONATOR ASSEMBLY AND FILTER

Title (de)
RESONATORANORDNUNG UND FILTER

Title (fr)
ENSEMBLE DE RESONATEUR ET FILTRE

Publication
EP 3104453 A1 20161214 (EN)

Application
EP 15306171 A 20150717

Priority
EP 15305879 A 20150610

Abstract (en)
Aspects and embodiments provide a reconfigurable resonator assembly comprising: a resonator enclosure which defines a resonator cavity, a signal feed and a resonant structure. The resonant structure is located within the resonator cavity and arranged to receive a signal from the signal feed. The resonant structure comprises: a tuning member and first and second elongate elements having an overlap region along their length. The first and second elongate elements are arranged to define a volume in said overlap region between an inner surface of one of the elongate elements and an outer surface of the other of the elongate elements. The first and second concentric elements are reconfigurable within the cavity between: a first position in which a first volume is defined in the overlap region and the resonant structure is configured to resonate within the cavity at a first frequency; and a second position in which a second volume is defined in the overlap region and the resonant structure is configured to resonate within the cavity at a second frequency. Aspects and embodiments may also provide a filter including one or more reconfigurable resonator assemblies. Aspects and embodiments may support provision of a miniaturised coaxial resonator which is configured to simultaneously achieve frequency tenability whilst retaining a high quality factor and high power handling ability.

IPC 8 full level
H01P 7/04 (2006.01)

CPC (source: EP)
H01P 7/04 (2013.01)

Citation (search report)

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