

Title (en)
TUNABLE RF CAVITY FILTER

Title (de)
ABSTIMMBARER HF-HOHLRAUMFILTER

Title (fr)
FILTRE À CAVITÉ RADIOFRÉQUENCE (RF) ACCORDABLE

Publication
EP 3311445 A1 20180425 (EN)

Application
EP 16728038 A 20160610

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Abstract (en)
[origin: WO2016202687A1] In embodiments, there is provided a radio frequency (RF) cavity filter (100), comprising a housing enclosing at least one radio frequency (RF) cavity resonator (120). Each radio frequency (RF) cavity resonator (120) comprises a cavity body (130) having a cavity body axis (1303) and an inner wall (1301) around a cavity hole (1107), wherein the cavity body (130) is arranged so that its inner wall (1301) is accessible from the outside of the housing; a dielectric socket (140) comprising a lining member (1402), wherein the lining member (1402) is arranged within the cavity body (130) so that it lines the inner wall (1301) of the cavity body (130) and is exchangeable from the outside of the housing; and a tuning element (150), arranged within the dielectric socket (140) so that galvanic insulation between the inner wall (1301) and the tuning element (150) is obtained and generation of passive inter-modulation is reduced. The tuning element (150) is arranged to be accessible from the outside of the housing so that its position along the cavity body axis (1303) can be adjusted, whereby the radio frequency (RF) cavity filter (100) is tuned to frequencies dependent on the position of the tuning element (150) along the cavity body axis (1303).

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