

Title (en)  
A MULTI-MODE CAVITY FILTER

Title (de)  
MULTIMODALER HOHLRAUMFILTER

Title (fr)  
FILTRE À CAVITÉ MULTIMODE

Publication  
**EP 3490055 A1 20190529 (EN)**

Application  
**EP 17203197 A 20171123**

Priority  
EP 17203197 A 20171123

Abstract (en)  
A multi-mode cavity filter is disclosed comprising a resonant cavity, formed of an electrically conductive material, having an interior chamber, and at least one dielectric resonator body comprising a piece of dielectric material having a shape that can support two or more resonant modes corresponding to different predetermined resonant frequencies, the dielectric resonator body being located within the interior chamber of the resonant cavity such that the resonator body is substantially enclosed by an interior surface of the resonant cavity. A coupling structure may be provided within, or forming part of, the resonant cavity for transferring signals to or from the two or more resonant modes corresponding to the different predetermined resonant frequencies of the dielectric resonator body in parallel. The resonant cavity may be configured such that an air gap remains between an outer surface of the dielectric resonator body and the interior surface of the resonant cavity.

IPC 8 full level  
**H01P 1/208** (2006.01)

CPC (source: EP)  
**H01P 1/2086** (2013.01)

Citation (search report)  
• [XYI] EP 3217469 A1 20170913 - NOKIA SOLUTIONS & NETWORKS OY [FI]  
• [XYI] EP 1858109 A1 20071121 - MATSUSHITA ELECTRIC IND CO LTD [JP]  
• [YA] US 2011133862 A1 20110609 - CHUN DONG-WAN [KR], et al  
• [A] EP 0759645 A2 19970226 - MURATA MANUFACTURING CO [JP]

Cited by  
CN114188684A

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

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**EP 3490055 A1 20190529**; WO 2019102326 A1 20190531

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