

Title (en)

DIELECTRIC FILTER ANTENNA, ELECTRONIC DEVICE, AND ANTENNA ARRAY

Title (de)

DIELEKTRISCHE FILTERANTENNE, ELEKTRONISCHE VORRICHTUNG UND ANTENNENARRAY

Title (fr)

ANTENNE À FILTRE DIÉLECTRIQUE, DISPOSITIF ÉLECTRONIQUE ET RÉSEAU D'ANTENNES

Publication

EP 4170820 A1 20230426 (EN)

Application

EP 21834650 A 20210625

Priority

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- CN 2021102294 W 20210625

Abstract (en)

This application provides a dielectric filter antenna, an electronic device, and an antenna array. The dielectric filter antenna includes a dielectric antenna and at least one layer of dielectric resonant cavity. The dielectric antenna is located at a top layer. The at least one layer of dielectric resonant cavity is located below the dielectric antenna. Energy coupling is performed between the dielectric antenna and a dielectric resonant cavity adjacent to the dielectric antenna. Materials of the dielectric antenna and the dielectric resonant cavity are a ceramic dielectric with a high dielectric constant. The energy coupling is performed between the dielectric antenna of the dielectric filter antenna in this application and the dielectric resonant cavity adjacent to the dielectric antenna, to avoid use of a transmission line or a matching circuit and avoid an insertion loss, thereby implementing a small size and good echo performance.

IPC 8 full level

H01Q 1/36 (2006.01)

CPC (source: CN EP KR)

H01Q 1/38 (2013.01 - CN KR); **H01Q 1/50** (2013.01 - CN KR); **H01Q 9/0457** (2013.01 - EP); **H01Q 9/0485** (2013.01 - EP); **H01Q 21/00** (2013.01 - CN); **H01Q 21/06** (2013.01 - EP); **H01Q 21/061** (2013.01 - KR); **H01Q 21/24** (2013.01 - EP KR); **H01Q 25/001** (2013.01 - EP)

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