

Title (en)  
DIELECTRIC RESONATOR

Title (de)  
DIELEKTRISCHER RESONATOR

Title (fr)  
RÉSONATEUR DIÉLECTRIQUE

Publication  
**EP 3324482 A1 20180523 (EN)**

Application  
**EP 16199728 A 20161121**

Priority  
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Abstract (en)

The present invention relates to a dielectric resonator (1) comprising a dielectric (3) which is integrally and coaxially formed of a disc (6), a first and a second ring (7, 8), wherein said disc (6) has a first and a second end face (10, 11), the first ring (7) axially extending from said first end face (10) and the second ring (8) axially extending from said second end face (11), wherein said disc (6) and rings (7, 8) have flush circumferential faces together forming a cylindrical mantle surface (12), a casing (2) which is formed by a metallisation (13) of said mantle surface (12) and by a first and a second metallic lid (14, 15), the first lid (14) spanning said first ring (7) and forming a first cavity (16) inside the first ring (7) and the second lid (15) spanning said second ring (8) and forming a second cavity (17) inside the second ring (8), and at least two electrodes (4, 5) which insulatedly penetrate the metallic casing (2) and reach into at least one of said first and second cavities (16, 17).

IPC 8 full level  
**H01P 7/10** (2006.01)

CPC (source: EP)  
**H01P 7/105** (2013.01)

Citation (applicant)

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- I.C. HUNTER ET AL.: "Dual-Mode Filters With Conductor-Loaded Dielectric Resonators", IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol. 47, December 1999 (1999-12-01), XP011037815
- M.S. BAKR ET AL.: "A Novel Dielectric-Loaded Dual-Mode Cavity for Cellular Base Station Applications", EUROPEAN MICROWAVE CONFERENCE, 2016
- X. WANG ET AL.: "A TM Mode Monoblock Dielectric Filter", IEEE TRANSACTION ON MICROWAVE THEORY AND TECHNIQUES, vol. 62, February 2014 (2014-02-01), XP011538915, DOI: doi:10.1109/TMTT.2013.2294854

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