

Title (en)

CAVITY-BACKED ANTENNA WITH IN-CAVITY RESONATORS

Title (de)

HOHLRAUMGESTÜTZTE ANTENNE MIT HOHLRAUMRESONATOREN

Title (fr)

ANTENNE À CAVITÉ DOTÉE DE RÉSONATEURS À CAVITÉ INTERNE

Publication

EP 4111538 A4 20240410 (EN)

Application

EP 21761569 A 20210216

Priority

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Abstract (en)

[origin: WO2021171284A1] A compact wideband RF antenna for incorporating into a planar substrate, such as a PCB, having at least one cavity with a radiating slot, and at least one transmission line resonator disposed within a cavity and coupled thereto. Additional embodiments provide stacked slot-coupled cavities and multiple coupled transmission-line resonators placed within a cavity. Applications to ultra-wideband systems and to millimeter-wave systems, as well as to dual and circular polarization antennas are disclosed. Further applications include configurations for an antenna based on a monopole element and having a radiation pattern that is approximately isotropic.

IPC 8 full level

H01Q 13/18 (2006.01); **H01Q 1/36** (2006.01); **H01Q 9/32** (2006.01); **H01Q 9/36** (2006.01); **H01Q 21/08** (2006.01)

CPC (source: EP)

H01Q 9/32 (2013.01); **H01Q 9/36** (2013.01); **H01Q 13/18** (2013.01); **H01Q 21/08** (2013.01)

Citation (search report)

- [A] US 2019260132 A1 20190822 - CHAYAT NAFTALI [IL], et al
- [A] US 2013028298 A1 20130131 - MANRY JR CHARLES W [US], et al
- [A] US 4242685 A 19801230 - SANFORD GARY G [US]
- See also references of WO 2021171284A1

Designated contracting state (EPC)

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