

Title (en)

COMPACT DIRECTIONAL ANTENNA, DEVICE COMPRISING SUCH AN ANTENNA

Title (de)

KOMPAKTE RICHTANTENNE, VORRICHTUNG MIT EINER SOLCHEN ANTENNE

Title (fr)

ANTENNE DIRECTIVE COMPACTE, DISPOSITIF COMPORTANT UNE TELLE ANTENNE

Publication

**EP 3942649 A1 20220126 (FR)**

Application

**EP 20710525 A 20200316**

Priority

- FR 1902798 A 20190319
- EP 2020057049 W 20200316

Abstract (en)

[origin: WO2020187821A1] The invention relates to a directional antenna (10) comprising an array (12) of unitary antenna elements. The array (12) comprises an active antenna element, called "radiator element (20)", which is intended to be electrically connected to a radiofrequency receiver or source, and at least one passive antenna element supplied with power by mutual induction, called "parasitic element (30)". The antenna is noteworthy in that the radiator element (20) is a parasitic resonator antenna comprising a monopole (21), a ground plane (22) and a parasitic cell (23) that is placed in the near field of the monopole (21). In particular embodiments, the ground plane (22) is used to accept tracks of an electronic circuit of a transmitter or receiver device. The antenna performs particularly well in terms of directivity and radiating efficiency, while being highly compact.

IPC 8 full level

**H01Q 1/38** (2006.01); **H01Q 9/30** (2006.01); **H01Q 19/26** (2006.01); **H01Q 19/32** (2006.01)

CPC (source: EP US)

**H01Q 1/38** (2013.01 - EP US); **H01Q 5/378** (2013.01 - US); **H01Q 9/30** (2013.01 - EP US); **H01Q 19/26** (2013.01 - EP US);  
**H01Q 19/32** (2013.01 - EP US)

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

DOCDB simple family (publication)

**WO 2020187821 A1 20200924**; EP 3942649 A1 20220126; EP 3942649 B1 20230927; EP 3942649 C0 20230927; ES 2966228 T3 20240419;  
FR 3094142 A1 20200925; FR 3094142 B1 20220401; US 2022336949 A1 20221020

DOCDB simple family (application)

**EP 2020057049 W 20200316**; EP 20710525 A 20200316; ES 20710525 T 20200316; FR 1902798 A 20190319; US 202017431417 A 20200316