

Title (en)
PRINTED CIRCUIT BOARD ANTENNA

Title (de)
LEITERPLATTEN-ANTENNE

Title (fr)
ANTENNE À CARTE DE CIRCUIT IMPRIMÉ

Publication
EP 3956944 A1 20220223 (DE)

Application
EP 20743963 A 20200402

Priority
• DE 102019205556 A 20190417
• EP 2020059388 W 20200402

Abstract (en)
[origin: WO2020212153A1] The invention relates to a printed circuit board antenna (100). The printed circuit board antenna (100) comprises an electrically conductive antenna structure (113) on an outer layer (110) of a printed circuit board (101), said antenna structure (113) having a first resonance frequency. The printed circuit board antenna (100) additionally comprises an electrically conductive feed line (115) to the antenna structure (113) and an electrically conductive reference region (111, 141) on the outer layer (110). The reference region (111, 141) completely encloses the antenna structure (113) with the exception of an insulating feed recess (117) for the feed line (115) and an insulating web recess (142). The web recess (142) is arranged on the antenna structure (113) face facing away from the feed line (115), and the reference region (111, 141) has a reference region web (143) on the antenna structure (113) face facing away from the feed line (115), said reference region web forming a resonator which is capacitively coupled to the antenna structure (113) and has a second resonance frequency.

IPC 8 full level
H01Q 1/38 (2006.01); **H01Q 1/22** (2006.01); **H01Q 1/48** (2006.01); **H01Q 5/328** (2015.01); **H01Q 9/04** (2006.01); **H01Q 9/42** (2006.01); **H01Q 13/10** (2006.01)

CPC (source: CN EP US)
H01Q 1/2291 (2013.01 - EP); **H01Q 1/241** (2013.01 - CN); **H01Q 1/38** (2013.01 - CN EP US); **H01Q 1/48** (2013.01 - CN EP); **H01Q 1/50** (2013.01 - CN); **H01Q 5/10** (2015.01 - CN); **H01Q 5/20** (2015.01 - CN); **H01Q 5/328** (2015.01 - EP); **H01Q 5/357** (2015.01 - US); **H01Q 5/50** (2015.01 - CN); **H01Q 9/0421** (2013.01 - EP); **H01Q 9/42** (2013.01 - EP); **H01Q 13/10** (2013.01 - EP)

Citation (search report)
See references of WO 2020212153A1

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 2020212153 A1 20201022; CN 113711437 A 20211126; CN 113711437 B 20231201; DE 102019205556 A1 20201022; EP 3956944 A1 20220223; US 11881636 B2 20240123; US 2022181777 A1 20220609

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