

Title (en)
ANTENNA DEVICE

Title (de)
ANTENNENVORRICHTUNG

Title (fr)
DISPOSITIF D'ANTENNE

Publication
EP 3896789 B1 20230215 (EN)

Application
EP 21168966 A 20210416

Priority
IT 202000008101 A 20200416

Abstract (en)
[origin: EP3896789A1] A 5G antenna device (1) comprising a flat, plate-shaped supporting base (5) in an electrically insulating material, a first terminal (6a) for providing an antenna signal, a second terminal (6b) set at a pre-established reference potential, and a dipole antenna electrical circuit (7) comprising a first portion (10) positioned on the supporting base (5) and having a polygonal shape, a second portion (11) positioned on the supporting base (5) and comprises a first branch (11a) having an elongated shape extending immediately alongside a first side (10a) of the first portion (10). The dipole antenna device (7) further comprises a plate-shaped element (12) made of electrically conductive material that lies on a plane transverse to the supporting base (5) and is electrically connected to the first branch (11a) of the second portion (11). The plate-shaped element (12) is adjacent to the first side (10a) of the first portion (10) and forms a capacitive antenna element therewith.

IPC 8 full level
H01Q 1/32 (2006.01); **H01Q 1/38** (2006.01); **H01Q 1/48** (2006.01); **H01Q 5/385** (2015.01); **H01Q 5/392** (2015.01); **H01Q 9/40** (2006.01); **H01Q 21/28** (2006.01)

CPC (source: EP)
H01Q 1/3291 (2013.01); **H01Q 1/38** (2013.01); **H01Q 1/48** (2013.01); **H01Q 5/385** (2015.01); **H01Q 5/392** (2015.01); **H01Q 9/40** (2013.01); **H01Q 21/28** (2013.01)

Citation (opposition)
Opponent : Desay SV Automotive Europe GmbH
• WO 2018111690 A1 20180621 - SKYWORKS SOLUTIONS INC [US]
• EP 2816665 A1 20141224 - BLACKBERRY LTD [CA]
• EP 1962375 A1 20080827 - LAIRD TECHNOLOGIES AB [SE]
• CH 710383 B1 20210331 - ERICSSON TELEFON AB L M [SE]
• DE 202004021054 U1 20070329 - LENOVO SINGAPORE PTE LTD [SG]
• WO 2019115363 A1 20190620 - HUBER ALOIS [DE], et al
• Y. LUO: "Enhancing cross-polarization discrimination or axial ratio beamwidth of diagonally dual or circularly polarised base station antennas by using vertical parasitic elements", IET MICROW. ANTENNAS PROPAG., vol. 11, no. 9, 2017, pages 1190 - 1196, XP006062441, DOI: 10.1049/iet-map.2016.0928

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