

Title (en)
Multi-band antenna element and antenna

Title (de)
Mehrbandantennenelement und -antenne

Title (fr)
Élément d'antenne multibande et antenne

Publication
EP 2963736 A1 20160106 (EN)

Application
EP 14306083 A 20140703

Priority
EP 14306083 A 20140703

Abstract (en)

An antenna and antenna element are disclosed. The antenna element comprises: a conductive radiating surface mounted at a distance from a surface plane of a ground plate; at least one feed probe for feeding an input signal to the conductive radiating surface; at least one frequency selective component mounted on or close to the conductive radiating surface. The at least one frequency selective component is configured to impede the flow of electric current within a first frequency band and to allow the flow of electric current within a second frequency band, such that a portion of the conductive radiating surface carries electric current of all of the frequency bands of the input signal and a further portion carries electric current of a subset of the frequency bands.

IPC 8 full level
H01Q 5/00 (2015.01); **H01Q 9/04** (2006.01); **H01Q 9/26** (2006.01); **H01Q 21/24** (2006.01)

CPC (source: EP)
H01Q 5/321 (2015.01); **H01Q 5/35** (2015.01); **H01Q 9/0407** (2013.01); **H01Q 9/26** (2013.01); **H01Q 21/24** (2013.01)

Citation (applicant)

- EP 14205603 A
- HERRAIZ-MARTINEZ ET AL.: "Dual-Frequency Printed Dipole Loaded With Split Ring Resonators", IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, vol. 8, 2009, XP011330909, DOI: doi:10.1109/LAWP.2009.2012402

Citation (search report)

- [X] EP 2234205 A1 20100929 - LAIRD TECHNOLOGIES AB [SE]
- [X] US 2013249753 A1 20130926 - ASANUMA KENICHI [JP], et al
- [X] WO 0249151 A1 20020620 - KONINKL PHILIPS ELECTRONICS NV [NL]
- [X] US 2006262028 A1 20061123 - TAKEI KEN [JP]
- [A] DE 202004021138 U1 20070222 - HIRSCHMANN ELECTRONICS GMBH [DE]
- [A] US 2010302123 A1 20101202 - KNUDSEN MIKAEL BERGHOLZ [DK], et al
- [X] HERRAIZ-MARTINEZ F J ET AL: "Dual-Frequency Printed Dipole Loaded With Split Ring Resonators", IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, IEEE, PISCATAWAY, NJ, US, vol. 8, 1 January 2009 (2009-01-01), pages 137 - 140, XP011330909, ISSN: 1536-1225, DOI: 10.1109/LAWP.2009.2012402

Cited by

CN113544906A; EP3886256A4; CN108736167A; US11031687B2; US10886632B2; US11276923B2; US11870144B2; US11843183B2; EP3734757A1; CN111883928A; CN112186345A; JPWO2020016995A1; CN112236902A; US2022109238A1; US12021315B2; WO2019235297A1; WO2020016995A1; WO2020173540A1; WO2021022695A1

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)
EP 2963736 A1 20160106

DOCDB simple family (application)
EP 14306083 A 20140703