

Title (en)
ANTENNA UNIT AND ANTENNA ARRAY

Title (de)
ANTENNENEINHEIT UND ANTENNENANORDNUNG

Title (fr)
UNITÉ D'ANTENNE ET RÉSEAU D'ANTENNES

Publication
EP 3364500 A4 20180905 (EN)

Application
EP 15909003 A 20151123

Priority
CN 2015095264 W 20151123

Abstract (en)
[origin: EP3364500A1] The present invention discloses an antenna unit and an antenna array, and relates to the communications field. The antenna unit includes: a baseplate and k patches that are above the baseplate and parallel to the baseplate, where an (i+1) th patch is above an i th patch, k > 1, and i < k; and each patch includes a first feed point, the first feed point is connected to a first feed port, and the first feed port is configured to output a first signal; or each patch includes a first feed point and a second feed point, the first feed point is connected to a first feed port, the second feed point is connected to a second feed port, the first feed port outputs a first signal, the second feed port outputs a second signal, frequencies of the first signal and the second signal are the same, and polarization directions of the first signal and the second signal are perpendicular to each other. The present invention resolves a problem that circuit implementation of adding a filter after a feed port to separate two signals is complex, so that a structure of an antenna unit is simplified.

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Citation (search report)
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• [A] DE 102007060083 A1 20090618 - KATHREIN WERKE KG [DE]
• [A] EP 1227545 A1 20020731 - FRACTUS SA [ES]
• [A] OSCAR QUEVEDO-TERUEL ET AL: "On the reduction of mutual coupling between stacked patches by exploiting the properties of the parasitic patch", ANTENNAS AND PROPAGATION (EUCAP), PROCEEDINGS OF THE 5TH EUROPEAN CONFERENCE ON, IEEE, 11 April 2011 (2011-04-11), pages 904 - 908, XP031878297, ISBN: 978-1-4577-0250-1
• [A] KWOK LUN CHUNG ET AL: "A SYSTEMATIC DESIGN METHOD TO OBTAIN BROADBAND CHARACTERISTICS FOR SINGLY-FED ELECTROMAGNETICALLY COUPLED PATCH ANTENNAS FOR CIRCULAR POLARIZATION", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 51, no. 12, 1 December 2003 (2003-12-01), pages 3239 - 3248, XP001046292, ISSN: 0018-926X, DOI: 10.1109/TAP.2003.820949
• See references of WO 2017088090A1

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