

Title (en)

Plane antenna with high gain and antenna efficiency.

Title (de)

Ebene Antenne mit hohem Gewinn und grossem Wirkungsgrad.

Title (fr)

Antenne plane avec rendement et gain élevés.

Publication

EP 0468413 A2 19920129 (EN)

Application

EP 91112254 A 19910722

Priority

JP 19690390 A 19900725

Abstract (en)

The antenna (10) includes an antenna unit comprising: a first dielectric body (2); a first grounding conductor body (1) provided on a lower side of the first dielectric body (2); a current supply line (5) in a form of a strip line provided on an upper side of the first dielectric body (2); a patch shaped radiative element (4) provided on the upper side of the first dielectric body (2) at an end of the current supply line; a second dielectric body (21) formed on the upper side of the first dielectric body (2) over the radiative element (4) and the current supply line (5); and a second grounding conductor body (11) provided on the upper side of the second dielectric body (21), which has a slot (3) at a position located directly above the radiative element (4); wherein the radiative elements (4) and the slots (3) of the plane antenna are arranged in a planar array with a constant interval (d) in two orthogonal directions, where the constant interval has a value equal to 0.72 to 0.93 or more preferably 0.85 to 0.93 times a wavelength corresponding to a central frequency of a frequency band for waves to be used. <IMAGE>

IPC 1-7

H01Q 21/06

IPC 8 full level

H01Q 21/24 (2006.01); **H01Q 13/08** (2006.01); **H01Q 13/16** (2006.01); **H01Q 21/06** (2006.01)

CPC (source: EP KR)

H01Q 13/08 (2013.01 - KR); **H01Q 21/065** (2013.01 - EP)

Cited by

CN111883938A; EP1018778A1; EP2015396A3; US2019123448A1; US11876295B2; US11283189B2; US6295295B1; US7345632B2; US11367960B2; US7158081B2; US11482790B2; US11108159B2; WO03003507A1; WO2004070878A1; US10892544B2; US11367959B2; US11616302B2; US6947008B2; US11031697B2; US11637377B2; US10892556B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0468413 A2 19920129; **EP 0468413 A3 19920812**; **EP 0468413 B1 19960320**; DE 69118037 D1 19960425; DE 69118037 T2 19960801; JP 2846081 B2 19990113; JP H0482405 A 19920316; KR 100313264 B1 20011228; KR 920003578 A 19920229; KR 930010834 B1 19931112; KR 950003960 B1 19950421

DOCDB simple family (application)

EP 91112254 A 19910722; DE 69118037 T 19910722; JP 19690390 A 19900725; KR 19940039296 A 19941230; KR 910012825 A 19910725; KR 910012825 D 19910725