

Title (en)

Space-saving broadband antenna with corresponding transceiver.

Title (de)

Wenig Raum beanspruchende, breitbandige Antenne mit zugehörigem Sendeempfänger.

Title (fr)

Antenne large bande à encombrement réduit, et dispositif d'émission/réception correspondant.

Publication

EP 0604338 A1 19940629 (FR)

Application

EP 93460039 A 19931220

Priority

FR 9215813 A 19921223

Abstract (en)

The invention relates to a space-saving broadband antenna, especially for independent portable stations used in networks for radio communication with land-based mobiles, comprising a substantially flat element (33), called horizontal element, and a short-circuit element (35) substantially perpendicular to the said horizontal element (33), called vertical element (35), the said vertical element connecting a first extremity (34) of the said horizontal element (33) to the electrical earth of a processing unit, and the said UHF signals being transported between the said processing unit and the said horizontal element (33) by a coaxial cable (311) connected to the said horizontal element (33), the said horizontal element (33) comprising: - a substantially rectangular intermediate surface (36), a first extremity of which corresponds to the said first extremity (34) of the said horizontal element (33); and - at least two strands (37, 38), substantially parallel to each other and substantially perpendicular to the said vertical element, the second extremity of the said intermediate surface (36) corresponding to a first extremity (313, 314) of each of the said strands (37, 38). <IMAGE>

Abstract (fr)

L'invention concerne une antenne large bande à encombrement réduit, notamment pour les stations autonomes portables utilisées dans les réseaux de radiocommunication avec des mobiles terrestres, comprenant un élément sensiblement plan (33), dit élément horizontal, et un élément de court-circuit (35) sensiblement perpendiculaire audit élément horizontal (33), dit élément vertical (35), ledit élément vertical connectant une première extrémité (34) dudit élément horizontal (33) à la masse électrique d'une unité de traitement, et lesdits signaux hyperfréquences étant véhiculés entre ladite unité de traitement et ledit élément horizontal (33) par un câble coaxial (311) connecté audit élément horizontal (33), ledit élément horizontal (33) comprenant : une surface intermédiaire (36) sensiblement rectangulaire, dont une première extrémité correspond à ladite première extrémité (34) dudit élément horizontal (33) ; et au moins deux brins (37,38) sensiblement parallèles entre eux et sensiblement perpendiculaires audit élément vertical, la seconde extrémité de ladite surface intermédiaire (36) correspondant à une première extrémité (313,314) de chacun desdits brins (37, 38). <IMAGE>

IPC 1-7

H01Q 1/24

IPC 8 full level

H01Q 1/24 (2006.01); **H01Q 9/04** (2006.01)

CPC (source: EP)

H01Q 1/243 (2013.01); **H01Q 9/0421** (2013.01)

Citation (applicant)

K. FUJIMOTO ET AL.: "Small Antennas", RESEARCH STUDIES PRESS LTD ET JOHN WILEY & SONS INC.

Citation (search report)

- [Y] WO 9102386 A1 19910221 - SIEMENS AG OESTERREICH [AT], et al
- [Y] US 3947850 A 19760330 - KALOI CYRIL M
- [Y] EP 0332139 A2 19890913 - TOYODA CHUO KENKYUSHO KK [JP]
- [A] EP 0246026 A2 19871119 - UNIDEN KK [JP]
- [Y] EP 0177362 A2 19860409 - NEC CORP [JP], et al
- [A] AT 387117 B 19881212 - SIEMENS AG OESTERREICH [AT]
- [A] J. RASINGER ET AL: "A New Enhanced-bandwidth Internal Antenna for Portable Communication Systems", 40 TH IEEE VEHICULAR TECHNOLOGY CONFERENCE, 6 May 1990 (1990-05-06), ORLANDO,US, pages 7 - 12, XP010003664

Cited by

US5764190A; CN104040791A; US5644319A; GB2345195A; EP1569298A1; EP1109251A3; EP1154518A3; EP1349109A1; US6114996A; DE19606582A1; DE19606582C2; EP0714151A1; FR2727250A1; US5835063A; GB2288284A; GB2288284B; DE19512003B4; GB2406217A; EP1959518A3; CN100433454C; EP2466552A1; GB2382723A; GB2382723B; EP1137097A1; GB2345194A; GB2345194B; GB2345581A; US6138050A; US6307512B1; US6271794B1; US7012568B2; US6919857B2; US7123209B1; US6859175B2; US7342540B2; WO03015210A1; WO03003503A3; WO0227865A1; WO2005069433A1; US7158082B2; US6943730B2; US7183983B2; US6906667B1; US6744410B2; US6333716B1; US7979089B2; WO2005081361A1; WO9914861A3; WO2004008573A1; WO02060005A1; WO2010032066A1; WO9844587A1; US7339531B2; US7084813B2; US6911940B2; US6717551B1; US10128883B2; US10680671B2; US11031965B2; US11509340B2

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