

Title (en)
Plate antenna with two crossed polarizations.

Title (de)
Plattenantenne mit zwei gekreuzten Polarisationen.

Title (fr)
Antenne plaque à double polarisations croisées.

Publication
EP 0243289 A1 19871028 (FR)

Application
EP 87460007 A 19870409

Priority
FR 8605990 A 19860423

Abstract (en)
[origin: JPH01125005A] PURPOSE: To make it possible to receive a radio signal having right-handed or left-handed circularly polarized wave and transmitted from a satellite by crossing strands supplied from two radiation tablets folded on similar thick strands arranged on the same plane in the orthogonal direction on the center of a reference antenna. CONSTITUTION: An assembly of a conductive board 1 or 4 occupies four quadrants sectioned by a non-conductive cross and the branch 5 or 8 of the cross is inclined by 45 deg. from the symmetrical axes X-X', Y-Y' of the board 1 or 4. The conductive part of a radiation part is formed on the original complete plating surface of a both-sided printed circuit 25 and a center metallic conductor 27 consisting of a 1st three-layer board supplying conductor is formed on the other surface 26 of the circuit 25. A center metallic conductor 30 consisting of a 2nd three-layer board supplying conductor is formed on the surface 29 of another both-sided printed circuit 28 and a plating reflection board 31 is formed on the other surface. The two printed circuits 25, 28 are superposed so that respective faces 26, 29 are opposed to each other and separated by the thin layer 32 to be a dielectric base.

Abstract (fr)
La partie rayonnante de l'antenne est formée de deux doublets rayonnants (1-3, 2-4) semblables qui sont situés dans un même plan et orthogonaux, les fentes entre les brins alimentés des doublets se croisent au centre (C) de l'antenne élémentaire. Les deux doublets élémentaires (1-3, 2-4) sont associés à des conducteurs centraux de lignes triplaques qui sont orthogonaux, leurs projections se croisant sous le centre (C) de l'antenne. Chaque ligne triplaque est constituée par les plaques (1-3 ou 2-4) d'un doublet, d'une part, un réflecteur, d'autre part, et, entre les plaques et le réflecteur, le conducteur central. Le réflecteur est commun aux deux doublets.

IPC 1-7
H01Q 21/24; **H01Q 19/06**; **H01Q 9/26**; **H01Q 21/00**

IPC 8 full level
H01Q 21/26 (2006.01); **H01Q 9/06** (2006.01); **H01Q 21/00** (2006.01); **H01Q 21/24** (2006.01)

CPC (source: EP US)
H01Q 9/065 (2013.01 - EP US); **H01Q 21/0075** (2013.01 - EP US); **H01Q 21/24** (2013.01 - EP US)

Citation (applicant)
• FR 2487588 A1 19820129 - FRANCE ETAT [FR]
• FR 8508840 A 19850610

Citation (search report)
• [A] FR 2565417 A1 19851206 - TRT TELECOM RADIO ELECTR [FR]
• [A] US 4590478 A 19860520 - POWERS RICHARD L [US], et al
• [A] US 3541559 A 19701117 - EVANS GARY E
• [A] US 3680142 A 19720725 - ATTA LESTER C VAN, et al
• [A] US 4131896 A 19781226 - MILLER COLEMAN J
• [X] COMPTES RENDUS. SERIE C. SCIENCES CHIMIQUES, vol. 295, no. 2, septembre 1982, pages 125-127,129,130, Paris, FR; G. DUBOST: "Source plaque compacte polarisée circulairement"
• [A] IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol. 23, no. 5, septembre 1975, pages 687-689, McGraw-Hill, New York, US; H.E. KING et al.: "A shallow ridged-cavity crossed-slot antenna for the 240- to 400-MHz frequency range"

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