Title (en)

Circular polarized antenna, particularly for array antenna.

Title (de)

Zirkular polarisierte Antenne, insbesondere für Gruppenantenne.

Title (fr)

Antenne à polarisation circulaire, notamment pour réseau d'antennes.

Publication

EP 0430745 B1 19940629 (FR)

Application

EP 90403209 A 19901113

Priority

FR 8915474 A 19891124

Abstract (en)

[origin: EP0430745A1] This antenna is excited through a three-plate supply line comprising two peripheral conductors (3, 4) arranged respectively above and beneath at least one central conductor (1; 2), and it includes: - three-plate excitation means comprising a broadband and symmetric 90 DEG hybrid coupler (30), with a first (32) and second (32') output branch and at least one input branch (31; 31') receiving from the three-plate line a signal to be radiated, - a first dipole radiating element (10), comprising two quarter- wave branches (12, 13) formed by prolonging in their plane, in the transverse direction and in a same sense, each of the peripheral conductors (3, 4) of the three-plate line, and a quarter-wave branch (11) formed by prolonging in its plane, parallel to the two abovementioned branches but in the opposite sense, the first output branch (32) of the 90 DEG hybrid coupler, - a second dipole radiating element (20), orthogonal to the first, comprising two quarter-wave branches (21, 22) formed by folding back, in opposite senses, the second output branch (32') of the 90 DEG hybrid coupler and one (4) of the peripheral conductors respectively, these two quarter-wave branches being coplanar and extending perpendicular to the planes of the conductors. <??>In this way, the dipole radiating elements are excited by similar respective signals, of like amplitude but phase shifted by 90 DEG and the signal to be radiated is thus circularly polarised. <IMAGE>

IPC 1-7

H01Q 9/06; H01Q 21/06; H01Q 21/24

IPC 8 full level

H01Q 9/06 (2006.01); **H01Q 21/06** (2006.01); **H01Q 21/24** (2006.01)

CPC (source: EP US)

H01Q 9/065 (2013.01 - EP US); **H01Q 21/062** (2013.01 - EP US); **H01Q 21/245** (2013.01 - EP US)

Cited by

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DE GB IT

DOCDB simple family (publication)

EP 0430745 A1 19910605; **EP 0430745 B1 19940629**; CA 2029378 A1 19910525; DE 69010310 D1 19940804; DE 69010310 T2 19941027; FR 2655202 A1 19910531; FR 2655202 B1 19920207; JP H03177101 A 19910801; US 5172128 A 19921215

DOCDB simple family (application)

EP 90403209 A 19901113; CA 2029378 A 19901106; DE 69010310 T 19901113; FR 8915474 A 19891124; JP 32051790 A 19901122; US 60669490 A 19901031