

Title (en)

HELIX ANTENNA WITH A BUILT-IN BROADBAND POWER SUPPLY, AND MANUFACTURING METHODS THEREFOR

Title (de)

WENDELANTENNE MIT INTEGRIERTER BREITBANDSPEISUNG UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)

ANTENNE HELICE A ALIMENTATION LARGE BANDE INTEGREE, ET PROCEDES DE FABRICATION CORRESPONDANTS

Publication

EP 0888647 A1 19990107 (FR)

Application

EP 97914394 A 19970313

Priority

- FR 9700455 W 19970313
- FR 9603698 A 19960319

Abstract (en)

[origin: CA2248853A1] A resonant helical antenna including at least one helix consisting of at least two radiating wires (111 to 114) printed on a substrate, a miniaturised broadband radiating wire power supply structure printed on said substrate, and at least one hybrid coupler made of semi-localised elements, in order to reduce the size thereof, is disclosed. In the case of a quadrifilar helix consisting of four radiating wires, the power supply structure includes three hybrid couplers, e.g. a first 180° hybrid coupler (12) connecting a power input and/or output (17) of said antenna to two intermediate outputs and/or inputs (18, 19) phase-shifted through 180°, and two 90° hybrid couplers (13, 14) each connecting one of said intermediate outputs and/or inputs of said first hybrid coupler to one end of two of said radiating wires. The corresponding manufacturing methods are also disclosed.

IPC 1-7

H01Q 11/08; **H01P 5/18**

IPC 8 full level

H01P 5/18 (2006.01); **H01Q 11/08** (2006.01)

CPC (source: EP US)

H01P 5/222 (2013.01 - EP US); **H01P 5/227** (2013.01 - EP US); **H01Q 11/08** (2013.01 - EP US)

Citation (search report)

See references of WO 9735356A1

Designated contracting state (EPC)

DE ES GB IT

DOCDB simple family (publication)

WO 9735356 A1 19970925; AU 2165097 A 19971010; CA 2248853 A1 19970925; CN 1218582 A 19990602; DE 69707845 D1 20011206; DE 69707845 T2 20020529; EP 0888647 A1 19990107; EP 0888647 B1 20011031; ES 2165036 T3 20020301; FR 2746547 A1 19970926; FR 2746547 B1 19980619; US 6181295 B1 20010130

DOCDB simple family (application)

FR 9700455 W 19970313; AU 2165097 A 19970313; CA 2248853 A 19970313; CN 97194576 A 19970313; DE 69707845 T 19970313; EP 97914394 A 19970313; ES 97914394 T 19970313; FR 9603698 A 19960319; US 14298599 A 19990125