

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

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Application

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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.

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