

Title (en)

Radiating multi-layer structure with variable directivity

Title (de)

Strahlende Mehrschichtenstruktur mit variablem Strahlungsdiagramm

Title (fr)

Structure rayonnante multicouches à directivité variable

Publication

EP 0627783 B1 19981014 (FR)

Application

EP 94401183 A 19940530

Priority

FR 9306660 A 19930603

Abstract (en)

[origin: EP0627783A1] The antenna of the invention comprises radiating sources having a multi-layer dielectric/conductor structure and a multiplicity of coupled elements distributed over the interfaces between the successive dielectric layers, fed by a single radiating block situated on the lower level of the antenna. The geometric parameters of the conducting patches and of their distributions on successive layers confer great flexibility in the antenna design, especially as far as the simultaneous optimisation of antenna parameters are concerned, such as: directivity, pass band, efficiency (by minimising distribution losses), the purity of the polarisation, and the symmetry of the radiating diagram. These advantages of the invention stem principally from the possibility for increasing the radiating aperture of a source without increasing the complexity of the passive distributors for distributing the radiated signals. This is achieved by the coupling of the elements between levels, and by the production of a geometry which makes it possible to increase the equivalent radiating surface at each successive level. <IMAGE>

IPC 1-7

H01Q 9/04; **H01Q 19/00**

IPC 8 full level

H01Q 9/04 (2006.01); **H01Q 19/00** (2006.01)

CPC (source: EP US)

H01Q 9/0414 (2013.01 - EP US); **H01Q 19/005** (2013.01 - EP US)

Cited by

FR2803694A1; EP0957535A1; CN111149255A; CN118399069A; EP0899814A1; FR2767970A1; US6061027A; US11469516B2; WO0152356A1; EP2194602B1

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