Title (en)

Electromagnetic lens of the type of a circuit printed on a suspended substrate

Title (de)

Elektomagnetische Linse in Form einer auf einem getragenen Substrat gedruckten Schaltung

Title (fr)

Lentille électromagnétique de type circuit imprimé à substrat suspendu

Publication

EP 0769824 B1 20020123 (FR)

Application

EP 96402170 A 19961011

Priority

FR 9512163 A 19951017

Abstract (en)

[origin: EP0769824A1] The device includes a cavity which is formed with a lateral transition part which is used for EM coupling of the input/output. The transitions (501) are formed by horns on the suspended substrate (55) around the perimeter of a printed conducting surface (50), abutting the respective transmission lines (502). Decoupling resistors are positioned between the horns and the cavity is designed for TEM mode propagation. A pair of dielectric discs (56,57) is stuck to either side of the substrate to determine a refractive index variation relation to obtain the propagation laws. The diameter of the discs matches that of the substrate and they are symmetric about the central plane. Their dielectric constant is greater than two and have a variable index to operate as a Luneberg lens.

IPC 1-7

H01Q 19/06; H01Q 25/00

IPC 8 full level

H01Q 19/06 (2006.01); **H01Q 25/00** (2006.01)

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DOCDB simple family (publication)

EP 0769824 A1 19970423; **EP 0769824 B1 20020123**; DE 69618741 D1 20020314; DE 69618741 T2 20020926; FR 2739974 A1 19970418; FR 2739974 B1 19980109; US 5966103 A 19991012

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