

## Title (en)

Microstrip slow wave transmission line and circuit including such a line.

## Title (de)

Langsam-Wellen-Mikrostreifenübertragungsleitung und Anordnung mit einer solchen Leitung.

## Title (fr)

Ligne de transmission en mode à ondes lentes, du type microruban et circuit incluant une telle ligne.

## Publication

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## Application

**EP 91201234 A 19910524**

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## Abstract (en)

Wave transmission line, in slow wave mode, of the so-called microstrip type, including a first so-called lower conductive layer (11) acting as earth plane, a second so-called upper conductive layer (12) in the form of a strip with specific longitudinal and transverse dimensions, and a third non-conductive material (1, 2) arranged between these two conductive layers. This transmission lines has, longitudinally, a periodic structure, each period, of length  $l$ , being formed of a so-called bridge (4) followed by a so-called pillar (13). Each bridge consists of a segment of the upper conductive strip (12), of length  $l_1 < l$ , arranged at the surface of a so-called first part (1) of the third material, which part is dielectric in nature. Moreover each pillar (13) is a capacitance which can be an active or passive element. Furthermore, the first conductive layer (11) can be provided with recesses (5) beneath each bridge. A directional coupler (50) can be produced by means of such slow wave lines, and used to produce an integrated transceiver device with single antenna. Application: monolithic microwave integrated circuits. <IMAGE>

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