

Title (en)

Microwave phase shifter, especially in the millimeter wave range, with a piezoelectric control.

Title (de)

Mikrowellenphasenschieber, insbesondere im Millimeterwellenbereich, mit piezoelektrischer Steuerung.

Title (fr)

Déphaseur en micro-ondes, notamment en ondes millimétriques, à commande piézoélectrique.

Publication

EP 0206846 A1 19861230 (FR)

Application

EP 86400891 A 19860423

Priority

FR 8506536 A 19850430

Abstract (en)

[origin: US4768001A] A microwave phase shifter comprise a dielectric waveguide having a flat side and a moving conductor plane member substantially parallel to the waveguide side. Piezoelectric means are provided to move the plane member with respect to the waveguide side between a portion relatively remote from the waveguide side and an other position substantially in contact with the waveguide side. The piezoelectric means consists preferably of a stack of piezoelectric members supplied by a variable d.c. power source. Owing to the piezoelectric means for moving the conductor plane member, a variable phase shift is continuously adjusted. Such a phase shifter can be as an antenna network when the dielectric waveguide contains groups of radiator perturbations, such as conductor strips, respectively controlled by one or several piezoelectric means carrying conductor plates facing waveguide portions including the perturbations groups.

Abstract (fr)

Un déphaseur pour micro-ondes et ondes millimétriques comprend un guide d'onde diélectrique - (10), un plan conducteur (16) mobile parallèle à un côté dudit guide, et des moyens de déplacement dudit plan par rapport au guide entre une position éloignée du guide et une position en contact avec le guide. Les moyens de déplacement comprennent une pièce de matériau piézoélectrique (14) portant le plan conducteur et une source de courant variable - (15) faisant varier au moins une dimension de ladite pièce.

IPC 1-7

H01P 1/18; **H01Q 3/32**; **H01Q 3/44**

IPC 8 full level

H01P 1/18 (2006.01); **H01Q 3/32** (2006.01); **H01Q 3/44** (2006.01)

CPC (source: EP US)

H01P 1/182 (2013.01 - EP US); **H01Q 3/32** (2013.01 - EP US); **H01Q 3/443** (2013.01 - EP US)

Citation (search report)

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- [Y] FR 1564199 A 19690418
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GB2288076A; GB2288076B; US6566579B1

Designated contracting state (EPC)

DE GB NL SE

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FR 2581254 A1 19861031; **FR 2581254 B1 19880916**; DE 3682334 D1 19911212; EP 0206846 A1 19861230; EP 0206846 B1 19911106; US 4768001 A 19880830

DOCDB simple family (application)

FR 8506536 A 19850430; DE 3682334 T 19860423; EP 86400891 A 19860423; US 85776786 A 19860429