

Title (en)
Voltage tunable coplanar phase shifters

Title (de)
Spannungsgesteuerte koplanare Phasenschieber

Title (fr)
Déphaseurs coplanaires accordables en tension

Publication
EP 1530249 A1 20050511 (EN)

Application
EP 05000308 A 20000822

Priority
• EP 00955822 A 20000822
• US 15061899 P 19990824

Abstract (en)
A reflective termination coplanar waveguide phase shifter including a substrate, a tunable dielectric film having a dielectric constant between 70 to 600, a tuning range of 20 to 60%, and a loss tangent between 0.008 to 0.03 at K and Ka bands positioned on a surface of the substrate, first and second open ended coplanar waveguides positioned on a surface of the tunable dielectric film opposite the substrate, microstrip line for coupling a radio frequency signal to and from the first and second coplanar waveguides, and a connection for applying a control voltage to the tunable dielectric film. <IMAGE>

IPC 1-7
H01P 1/18

IPC 8 full level
H01P 1/18 (2006.01)

CPC (source: EP)
H01P 1/181 (2013.01)

Citation (search report)
• [A] EP 0608889 A1 19940803 - HUGHES AIRCRAFT CO [US]
• [A] US 5694134 A 19971202 - BARNES FRANK [US]
• [A] CHAKALOV R A ET AL: "Fabrication and investigation of YBa₂Cu₃O₇-delta/Ba_{0.05}Sr_{0.95}TiO₃ thin film structures for voltage tunable devices", PHYSICA C,NL,NORTH-HOLLAND PUBLISHING, AMSTERDAM, vol. 308, no. 3-4, November 1998 (1998-11-01), pages 279 - 288, XP004150032, ISSN: 0921-4534
• [A] GEVORGIAN S S ET AL: "ELECTRICALLY CONTROLLED HTSC-FERROELECTRIC COPLANAR WAVEGUIDE", IEE PROCEEDINGS: MICROWAVES, ANTENNAS AND PROPAGATION,GB,IEE, STEVENAGE, HERTS, vol. 141, no. 6, PART H, 1 December 1994 (1994-12-01), pages 501 - 503, XP000484786, ISSN: 1350-2417

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Designated contracting state (EPC)
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