

Title (en)  
**MODE CONVERTER**

Publication  
**EP 0374720 A3 19910327 (DE)**

Application  
**EP 89123060 A 19891213**

Priority  
**DE 3843259 A 19881222**

Abstract (en)  
[origin: EP0374720A2] It is intended to specify a mode converter which can be produced as simply as possible and which manages without calibration devices. This object is achieved by an arrangement consisting of a circular wave guide (RH), in the wall of which a coupling opening (K1, K2) with a diaphragm (B1, B2) is arranged, and a splitting plate (TB1, TB2) inserted in the circular wave guide, which begins in the area of the coupling opening (K1, K2) and extends in the circular wave guide (RH) into the area where the propagation of a wave to be coupled in or out via the coupling opening is to be prevented. The splitting plate (TB1, TB2) begins at its end located in the area of the coupling opening (K1, K2) with a narrow width and widens towards the other end to a width adapted to the inside dimensions of the circular wave guide. Into the splitting plate (TB1, TB2), several slots (S1, S2) are inserted which are arranged and dimensioned in such a manner that interfering resonances caused by the splitting plate (TB1, TB2) are suppressed. Two such mode converters can be used for making an inexpensive polarisation switch. <IMAGE>

IPC 1-7  
**H01P 1/161**

IPC 8 full level  
**H01P 1/161** (2006.01)

CPC (source: EP)  
**H01P 1/161** (2013.01)

Citation (search report)

- [Y] BE 677286 A 19660905
- [Y] GB 965244 A 19640729 - PHILIPS ELECTRICAL IND LTD
- [A] CH 664848 A5 19880331 - HUBER+SUHNER AG
- [A] US 3201717 A 19650817 - MARCEL GROSBOIS, et al
- [A] US 3162828 A 19641222 - SCHMIDT RAYMOND F, et al
- [A] FR 2371065 A1 19780609 - LICENTIA GMBH [DE]
- [A] EP 0041077 A2 19811209 - ANT NACHRICHTENTECH [DE]

Cited by  
**WO9220114A1**

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