

Title (en)

A polarisation alignment system using waveguide differential phase shifters, and an antenna unit including such a system

Title (de)

Polarisationsausrichtungssystem mit differentiellen Hohlleiterphasenschiebern, und eine Antenne mit einem solchen System

Title (fr)

Système pour l'alignement de polarisation utilisant des déphaseurs différentiels à guides d'ondes, et antenne comprenant un tel système

Publication

**EP 1487049 A1 20041215 (EN)**

Application

**EP 04013569 A 20040609**

Priority

IT TO20030436 A 20030610

Abstract (en)

A system for alignment of the polarisation of an electromagnetic wave between a first and a second guiding structure of a communication system operating with linearly polarised signals is described, in which the first guiding structure is orientable for alignment with the direction of polarisation of a signal received or transmitted by the system and the second structure is fixed with respect to a general reference system of the system. <??>The system includes a first 90 DEG waveguide differential phase shifter device (PS1) fixed to the first guiding structure, and a second 90 DEG wave guide differential phase shifter device (PS2) fixed to the second guiding structure, coupled together for rotation by means of a rotary joint (RJ) in such a way as to allow rotation of the first orientable structure with respect to the second fixed structure through an angle corresponding to the original misalignment angle. <IMAGE>

IPC 1-7

**H01P 1/06**; **H01P 1/165**; **H01Q 13/00**

IPC 8 full level

**H01P 1/06** (2006.01); **H01P 1/165** (2006.01); **H01Q 13/00** (2006.01)

CPC (source: EP)

**H01P 1/065** (2013.01); **H01P 1/165** (2013.01); **H01Q 13/00** (2013.01)

Citation (search report)

- [X] US 3569870 A 19710309 - FOLDES PETER
- [A] US 2930040 A 19600322 - WEIL FREDERICK M
- [A] US 3668567 A 19720606 - ROSEN HAROLD A
- [A] US 4233576 A 19801111 - PELCHAT GUY M

Cited by

CN112362083A; CN107925167A; CN109193170A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1487049 A1 20041215**; IT TO20030436 A1 20041211

DOCDB simple family (application)

**EP 04013569 A 20040609**; IT TO20030436 A 20030610