

Title (en)

Phase-shifting combiner for electromagnetic waves.

Title (de)

Phasenschiebungsaddierer für elektromagnetische Wellen.

Title (fr)

Combineur à déphasage pour ondes électromagnétiques.

Publication

**EP 0336339 A1 19891011 (FR)**

Application

**EP 89105813 A 19890403**

Priority

FR 8804542 A 19880406

Abstract (en)

Phase-shifting combiner for electromagnetic waves, comprising at least one phase-shifting cell formed of a hybrid coupler (12), of an input transmission line (10), of an output transmission line (11), and of a loop transmission line (13) which is connected between the first input and the first output of the coupler (12), the input transmission line (10) being connected to the second input of the coupler, and the output transmission line (11) being connected to the second output of the coupler. <??>Application in particular to the field of telecommunications. <IMAGE>

IPC 1-7

**H01P 1/18**; **H01P 5/16**

IPC 8 full level

**H01P 1/18** (2006.01); **H01P 5/04** (2006.01); **H01P 5/12** (2006.01); **H01P 5/16** (2006.01)

CPC (source: EP US)

**H01P 1/182** (2013.01 - EP US); **H01P 5/16** (2013.01 - EP US)

Citation (search report)

- [Y] US 2633492 A 19530331 - RING DOUGLAS H
- [Y] US 2531447 A 19501128 - LEWIS WILLARD D
- [A] US 3727152 A 19730410 - BODONYI J
- [A] GB 851888 A 19601019 - THOMSON HOUSTON COMP FRANCAISE
- [A] US 2639326 A 19530519 - RING DOUGLAS H
- [A] US 2888651 A 19590526 - SAMUEL BRANDON PERCY, et al
- [A] US 3967223 A 19760629 - MCAVOY BRUCE R
- [A] US 4602227 A 19860722 - CLARK RAYMOND N [US], et al
- [A] L. MILOSEVIC et al.: "Travelling wave resonators", extrait de la "Revue technique C.F.T.H", no. 21, decembre 1955, pages 63-78, Paris, FR
- [A] IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol. MTT-31, no. 2, février 1983, pages 91-107, IEEE, New York, US; K. CHANG et al.: "Millimeter-wave power-combining techniques"

Cited by

AU633019B2

Designated contracting state (EPC)

DE ES FR GB IT NL SE

DOCDB simple family (publication)

**EP 0336339 A1 19891011**; **EP 0336339 B1 19931215**; CA 1298885 C 19920414; DE 68911352 D1 19940127; FR 2629949 A1 19891013; FR 2629949 B1 19901116; JP H01300601 A 19891205; US 4961061 A 19901002

DOCDB simple family (application)

**EP 89105813 A 19890403**; CA 595386 A 19890331; DE 68911352 T 19890403; FR 8804542 A 19880406; JP 8783789 A 19890406; US 33334189 A 19890404