

Title (en)
Microwave directional coupler

Title (de)
Mikrowellenrichtkoppler

Title (fr)
Coupleur directionnel à micro-ondes

Publication
EP 2360776 A1 20110824 (EN)

Application
EP 10153670 A 20100216

Priority
EP 10153670 A 20100216

Abstract (en)
The present invention discloses a directional coupler comprising a main transmission line (110) comprising an input port (111) and an output port (112) for transmitting a first electromagnetic wave from the input port to the output port and a second electromagnetic wave in the opposite direction, a coupler line (120) arranged proximate to the main transmission line for electromagnetic coupling between the two lines, and a linear electronic means (130). The coupler line comprises a first port (121) at a first one of its ends and a second port (122) at its opposite end (or second end) between which the electronic means is arranged. The electronic means is configured to reduce the output signal induced by the first electromagnetic wave at the second port and the output signal induced by the second electromagnetic wave at the first port. For this purpose, the electronic means is configured to reduce the difference between the oppositely directed signals induced at the second port by the magnetic and the electric components, respectively, of an electromagnetic field coupled to the coupler line and originating from the first electromagnetic wave and also configured to reduce the difference between the oppositely directed signals induced at the first port by the magnetic and the electric components, respectively, of an electromagnetic field coupled to the coupler line and originating from the second electromagnetic wave.

IPC 8 full level
H01P 5/18 (2006.01)

CPC (source: EP)
H01P 5/185 (2013.01)

Citation (applicant)
• US 4433313 A 19840221 - SAINT JACQUES [FR], et al
• US 2004119559 A1 20040624 - SHUMOVICH RAYMOND J [US]

Citation (search report)
• [X1] DE 202007010239 U1 20070920 - ROSENBERGER HOCHFREQUENZTECH [DE]
• [XD] EP 0048195 A1 19820324 - RADANT ETUDES [FR]

Cited by
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AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

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