

Title (en)

DIRECTIONAL COUPLER AND MICROWAVE HEATING DEVICE PROVIDED WITH SAME

Title (de)

RICHTKOPPLER UND MIKROWELLENERWÄRMUNGSVORRICHTUNG DAMIT

Title (fr)

COUPLEUR DIRECTIONNEL ET DISPOSITIF DE CHAUFFAGE À MICRO-ONDES POURVU DE CELUI-CI

Publication

EP 3783736 B1 20231122 (EN)

Application

EP 19788616 A 20190415

Priority

- JP 2018081499 A 20180420
- JP 2019016074 W 20190415

Abstract (en)

[origin: EP3783736A1] A directional coupler includes: an opening having a first and a second elongated hole, mutually-crossing at a position without intersecting a waveguide's axis in plan-view; and a coupling line having a first and a second transmission line that respectively include a first and a second intersecting-line portion. The first intersecting-line portion extends, from one end of the axis, away from the axis as approaching a perpendicular line, and intersects the first hole at a position farther away from the axis than the opening-cross portion is, the perpendicular line being orthogonal to the axis and passing through the opening-cross portion at which the first hole and the second hole intersect each other, in plan-view. The second intersecting-line portion extends, from another end of the axis, away from the axis as approaching the perpendicular-line, and intersects the second hole at a position farther away from the axis than the opening-cross portion is, in plan-view. The first and second transmission lines are mutually coupled at out of an opening-located region, in plan-view.

IPC 8 full level

H01P 5/18 (2006.01); **H01P 5/107** (2006.01); **H05B 6/70** (2006.01)

CPC (source: EP)

H01P 5/107 (2013.01); **H01P 5/18** (2013.01); **H05B 6/708** (2013.01)

Citation (examination)

JP H08288705 A 19961101 - DAEWOO ELECTRONICS CO LTD

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3783736 A1 20210224; EP 3783736 A4 20210616; EP 3783736 B1 20231122; CN 111033889 A 20200417; CN 111033889 B 20211008; JP 2022189917 A 20221222; JP 7178563 B2 20221128; JP 7454770 B2 20240325; JP WO2019203170 A1 20210513; WO 2019203170 A1 20191024

DOCDB simple family (application)

EP 19788616 A 20190415; CN 201980003790 A 20190415; JP 2019016074 W 20190415; JP 2020514361 A 20190415; JP 2022169563 A 20221024