

Title (en)
IMPEDANCE-CONTROLLED COPLANAR WAVEGUIDE SYSTEM FOR THE THREE-DIMENSIONAL DISTRIBUTION OF HIGH-BANDWIDTH SIGNALS

Title (de)
IMPEDANZKONTROLLIERTES KOPLANARES WELLENLEITERSYSTEM ZUR DREIDIMENSIONALEN VERTEILUNG VON SIGNALEN HOHER BANDBREITE

Title (fr)
SYSTÈME COPLANAIRE DE GUIDES D'ONDES CONTRÔLE PAR IMPÉDANCE POUR LA DISTRIBUTION TRIDIMENSIONNELLE DE SIGNAUX DE GRANDE LARGEUR DE BANDE

Publication
EP 2158636 A1 20100303 (DE)

Application
EP 08774120 A 20080618

Priority
• EP 2008057666 W 20080618
• DE 102007028799 A 20070619

Abstract (en)
[origin: CA2689154A1] The invention relates to a waveguide system for distributing high-bandwidth signals in a multilayer circuit carrier. The waveguide system comprises at least one coplanar waveguide (2) and one or more ground wires (3, 4). The coplanar waveguide (2) is disposed with the ground wires (3, 4) associated therewith between at least two insulating layers (5, 6) of the circuit carrier. The surface of the two insulating layers oriented away from the plane of the waveguide (2) has electrically conductive layers (7, 8). Electrically conductive plated through-holes (9, 10) extend along the waveguide (2) substantially perpendicular to the plane of the waveguide. The ground wires (3, 4), the electrically conductive layers (7, 8), and the plated through-holes (9, 10) are electrically connected to ground potential. The waveguide system serves particularly for the three-dimensional distribution of high-bandwidth signals.

IPC 8 full level
H01P 3/00 (2006.01)

CPC (source: EP US)
H01P 3/003 (2013.01 - EP US); **H05K 1/0219** (2013.01 - EP US); **H05K 2201/0191** (2013.01 - EP US); **H05K 2201/0715** (2013.01 - EP US); **H05K 2201/09236** (2013.01 - EP US); **H05K 2201/09618** (2013.01 - EP US)

Citation (search report)
See references of WO 2008155340A1

Citation (examination)
• US 2003188889 A1 20031009 - STRAUB PETER [CH], et al
• GIPPRICH J ET AL: "A NEW VIA FENCE STRUCTURE FOR CROSSTALK REDUCTION IN HIGH DENSITY STRIPLINE PACKAGES", 2001 IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM DIGEST.(IMS 2001). PHOENIX, AZ, MAY 20 - 25, 2001; [IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM], NEW YORK, NY : IEEE, US, 20 May 2001 (2001-05-20), pages 1719 - 1722, XP001067553, ISBN: 978-0-7803-6538-4, DOI: 10.1109/MWSYM.2001.967237

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
DE 102007028799 A1 20081224; CA 2689154 A1 20081224; EP 2158636 A1 20100303; JP 2010530690 A 20100909; US 2010182105 A1 20100722; WO 2008155340 A1 20081224

DOCDB simple family (application)
DE 102007028799 A 20070619; CA 2689154 A 20080618; EP 08774120 A 20080618; EP 2008057666 W 20080618; JP 2010512673 A 20080618; US 66536608 A 20080618